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# ENVIRONMENTAL IMPACT REPORT

November 4, 1988

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## VISION 2005

A PLAN FOR THE CITY OF WALNUT CREEK





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**DRAFT ENVIRONMENTAL IMPACT REPORT  
THE WALNUT CREEK GENERAL PLAN**

SCH# 88062119

**Prepared By:** The Walnut Creek Community Development Department  
Technical data provided by:  
Illingworth and Rodkin, Inc. - Noise  
Don Ballanti - Air Quality  
Economic and Planning Systems - Economic and Fiscal Analysis

**CITY OF WALNUT CREEK  
NOVEMBER 9, 1988**



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## CHAPTER 1: EXECUTIVE SUMMARY

### A. Introduction

This report has been prepared as a program EIR and is intended to analyze the impacts that would result from implementation of the proposed Walnut Creek General Plan (PGP) and three alternatives. The issues analyzed in this EIR are identified in the Initial Study (see **Appendix A**). The EIR analyzes buildout of the City under four different scenarios:

- 1) buildout according to the city's proposed growth management plan which permits buildout of residential land uses at proposed General Plan densities but limits total commercial development to 2.7 million square feet (Proposed General Plan);
- 2) buildout under the existing general plan (No Project Alternative);
- 3) buildout under the proposed general plan land uses with Measure H restrictions (Measure H Alternative); and,
- 4) buildout under a more restrictive program which would only permit development of vacant parcels and a small amount of additional commercial square footage (Reduced Measure H Alternative).

The development allowed by these four alternatives is compared to existing levels of development and the resulting impacts analyzed. Since the PGP and the EIR were developed in conjunction with each other, mitigations in the form of policies and implementation programs have already been incorporated into the proposed plan. Additional mitigations are recommended where necessary to further reduce identified impacts.

### B. Summary of Impacts

The following paragraphs categorize the impacts into two groups:

1) impacts which are mitigated to insignificant levels; and 2) impacts which cannot be mitigated to insignificant levels, despite General Plan policies, programs or additional mitigations.

It is important to note that while the PGP would result in increased impacts compared to today's conditions, the impacts would generally be less than would result from implementation of the existing General Plan.

#### 1. Impacts Which Are Mitigated to Insignificant Levels

- potential risk due to slope instability, erosion potential, liquefaction and subsidence
- view degradation in hillside areas
- changes to the City's visual appearance resulting from additional development
- availability of housing for Walnut Creek workers
- loss of wildlife and habitat
- potential risk from flooding
- cumulative increases to regional air pollution levels of carbon monoxide
- increase in demand for public services (police, schools, water)



2. Impacts Which Are Not Mitigated to Insignificant Levels

- traffic congestion on city streets
- exposure to risk from a seismic event
- cumulative increases to regional air pollution levels of ozone precursors

C. Comparison of Alternatives

Three alternatives were compared to the Proposed General Plan (PGP). The No Project Alternative, which is the existing (1971) plan, the Measure H Alternative, and the Reduced Measure H Alternative. The amount of new development that would be possible under the Proposed General Plan and the three alternatives is summarized below, and in **Tables 4-1** and **4-2** of this EIR. The development potential within the incorporated city limits, and within the entire General Plan planning area is shown in the tables.

1. The Proposed General Plan is intended to limit traffic congestion increases, provide opportunities for economic development in the City, and improve the housing supply. The plan would allow about 7,000 residential units and 2,700,000 square feet of commercial development within the City limits. This would be about 560% less commercial development than could occur under the existing plan. The reduction is accomplished through revised land use designations and a 2.7 million square foot cap on commercial development.

The proposed plan would allow about the same amount of commercial development as would occur under Measure H with the existing General Plan. However, the PGP permits development to occur under different land use density and intensity standards in order to achieve City economic and design goals. This would be accomplished by locating a larger portion of the permitted total development in areas such as the Downtown Retail District where specific economic goals could be achieved, and by allowing development on a scale consistent with surrounding uses where necessary to achieve design goals.

The plan provides more housing units than any of the other alternatives, thus improving the jobs/housing balance in the City. Traffic impacts outside the Core Area would be similar to the Measure H Alternative because most of the additional residential units would be located in the Core Area.

2. The No Project Alternative is the existing (1971) General Plan including the 1975 Core Area Plan. This alternative is oriented towards development of Walnut Creek as a major subregional commercial center. The No Project Alternative would allow about 15,183,200 square feet of commercial space within the incorporated City (approximately 560% more than the Proposed General Plan).

The existing plan would allow about 5,000 residential units - about 29% less than the Proposed General Plan. In light of the existing plan's emphasis on commercial development, the provision of less housing would probably exacerbate housing shortages and roadway congestion due to employees commuting to Walnut Creek jobs.



The existing plan would allow almost double the existing amount of commercial development in the City, creating a much more urbanized look to the Core Area. Because of the large amount of commercial development this alternative would create the greatest traffic increases.

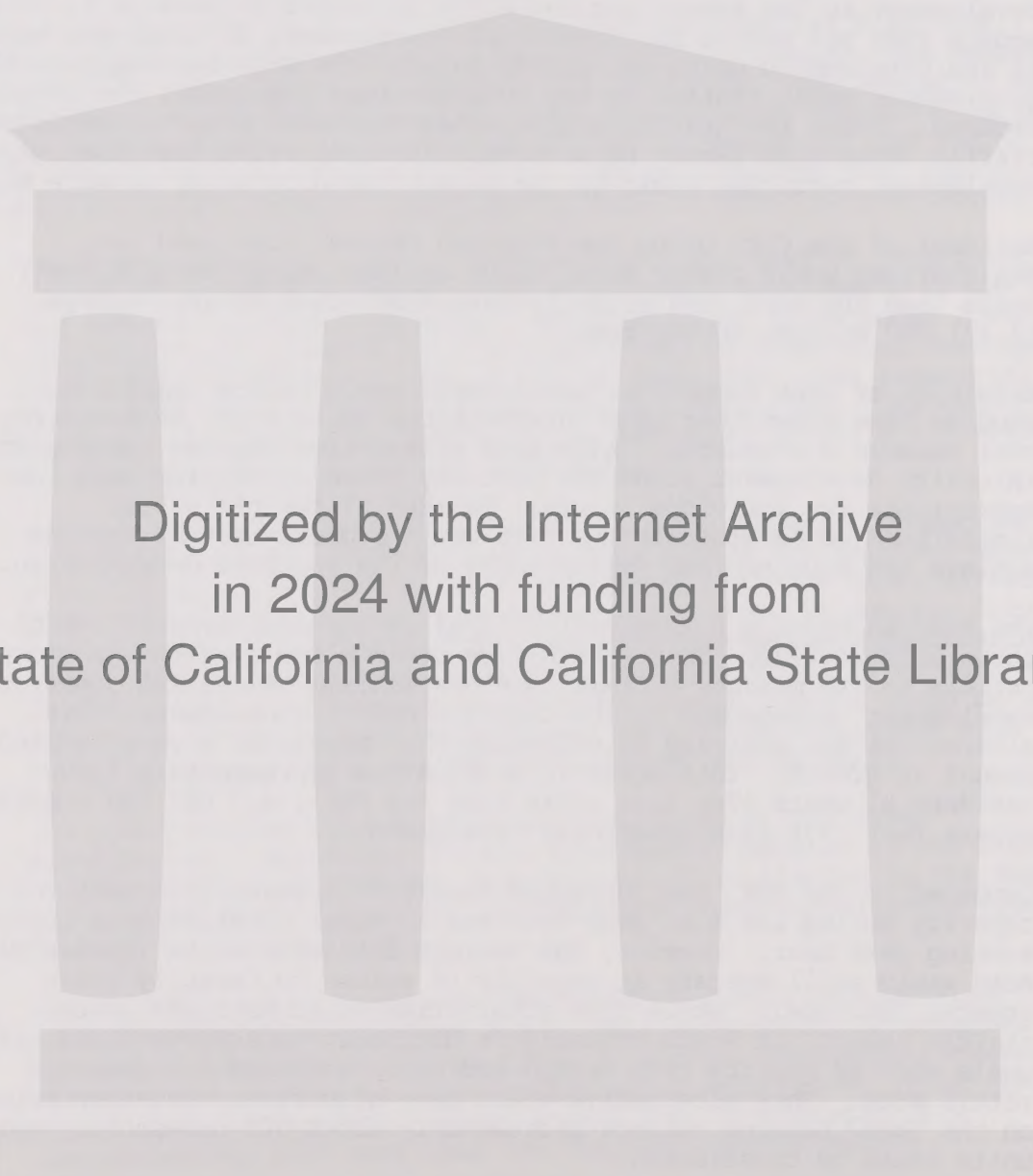
3. The Measure H Alternative (MHA) would adopt the Proposed General Plan land use designations, but would limit commercial and residential development to the exemptions currently permitted by Measure H; 10,000 square feet per parcel for commercial development; 30 units per parcel in the Core and 10 units per parcel outside the Core for residential development until traffic at key intersections throughout the City is reduced. Since the traffic analysis has indicated that the required traffic reductions cannot be achieved, it is expected that the only development permitted would be the exemptions allowed by Measure H.

Buildout of the City using the Proposed General Plan land use designations would create about 5,100 residential units (27% fewer units than the PGP), and slightly less commercial square footage (2,441,000 million square feet).

Provision of less commercial development would reduce traffic but studies have shown that many intersections would still be operating over Measure H standards. Also this alternative imposes density and intensity development standards that may be substantially less than is appropriate for individual sites. Because of the per parcel limitations on development the City would probably not be able to achieve the economic and design goals of the Proposed General Plan.

3. The Reduced Measure H Alternative (RHA) is the most restrictive of the three alternatives. This alternative would allow development on vacant parcels to the Measure H limit, and the minimum additional commercial development recommended by the City's economic consultant. This alternative was analyzed to determine the impacts of a very limited amount of growth. This scenario would allow approximately 1,800 residential units (74% less units than the PGP), and 622,600 commercial square feet (77% less commercial development).

Compared to the PGP, the RHA would result in 8 fewer intersections over capacity during the a.m. peak hour and 11 fewer intersections in the evening peak hour. However, the average intersection on Ygnacio Valley Road would still operate at capacity (a volume to capacity ratio greater than one). While this alternative would have the lowest traffic impact, it would probably be difficult to achieve other City goals such as quality city design and enhancement of the downtown retail area. This alternative would have significant negative impacts on the jobs/ housing balance because only about 500 non-senior housing units could be constructed.



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## CHAPTER 2: INTRODUCTION

### A. Authority and Scope of This EIR

This EIR was prepared in accordance with section 15168 of the State CEQA Guidelines which permits the preparation of a program EIR. This type of EIR is used for projects that include a series of actions under the auspices of one project which covers a large geographic area. This approach has several advantages over a project specific EIR:

- \* it provides for a more complete examination of the comparative effects of different alternatives
- \* it ensures full consideration of cumulative impacts
- \* it avoids duplicating consideration of basic policy options
- \* it allows for consideration of citywide mitigation measures

The Program EIR is intended to analyze the cumulative impacts of buildout under the provisions of the various alternatives analyzed. The EIR does not analyze development on a project by project basis. However, the Program EIR can in some cases be used to evaluate the impacts of subsequent individual projects. Thus a Program EIR may reduce the necessity of preparing full scale individual project EIR's. (Consult the CEQA Guidelines, Section 15168, for more information on the use of Program EIR's with individual projects.)

### B. Project Location and Boundaries

Walnut Creek is located in Contra Costa County in the East Bay Region of the San Francisco Bay Area. The city lies approximately 25 miles northeast of San Francisco at the junction of Highway 680 and Highway 24 (see **Figure 1-1** of the General Plan). Undeveloped ridgelines set Walnut Creek apart from the surrounding cities of Lafayette to the west, Pleasant Hill to the north and Concord to the northeast. Grazing lands and Mt. Diablo State Park border the city's eastern edge.

The Planning Area defined for purposes of the General Plan update encompasses 30.8 square miles, and consists of three overlapping areas (see **Figure 2-1** of the General Plan). The City limits encompass 17.5 square miles (11,200 acres). The Sphere of Influence (lands surrounding the City boundaries currently under County jurisdiction, but which are ultimately expected to be annexed to the City) covers 3.1 square miles (1,990 acres). The remaining lands in the Planning Area represent areas that bear a direct relationship to the city, and which the City wishes to have some policy influence over. Essentially these lands encompass the foothill region on the city's eastern border, and were included for their value as a scenic backdrop and natural resource area.

### C. Organization of This EIR

This EIR is organized into six chapters. Chapters 1 and 2 comprise the Executive Summary and the Introduction. Chapter 3 establishes the

regional and local setting for the General Plan. Chapter 4 describes the project (the Proposed General Plan- PGP) and three alternatives to the project. Chapter 5 provides a detailed analysis of the impacts resulting from implementation of the Plan and each of the alternatives. Chapter 6 describes CEQA mandated findings of cumulative, growth inducing and short versus long term impacts. The Appendices include the Initial Study, persons and agencies contacted during preparation of the EIR, statistical analyses prepared for the EIR and a list of references.



### CHAPTER 3: REGIONAL AND LOCAL SETTING

The paragraphs below summarize existing and future conditions in the region and in Walnut Creek. A full discussion of population, housing and jobs is contained in the Background section of the Community Development and Housing elements of the Proposed General Plan.

#### A. Regional Setting

The City of Walnut Creek is located in the Diablo Valley near the geographic center of Contra Costa County. Hilly areas to the east and west separate the City from East County and the East Bay respectively. Much of the Diablo Valley from the Carquinez Straits to San Ramon has become urbanized. However, the steep hills on either side of the valley have remained relatively undeveloped preserving the character of the natural setting.

South bound Highway 680 connects to the Trivalley area and the South Bay beyond. State Route 24 runs west through the Lamorinda area connecting to the East Bay. Highway 680 north links the area to the Central Valley. BART provides transportation links to Pleasant Hill and Concord to the north and the Bay Area to the west.

Over the past ten years there has been considerable development in the central county. The expected housing units and population of the area for 1991 (including existing and approved housing), and projections for 2005 are shown below in Table 3-1.

Table 3-1

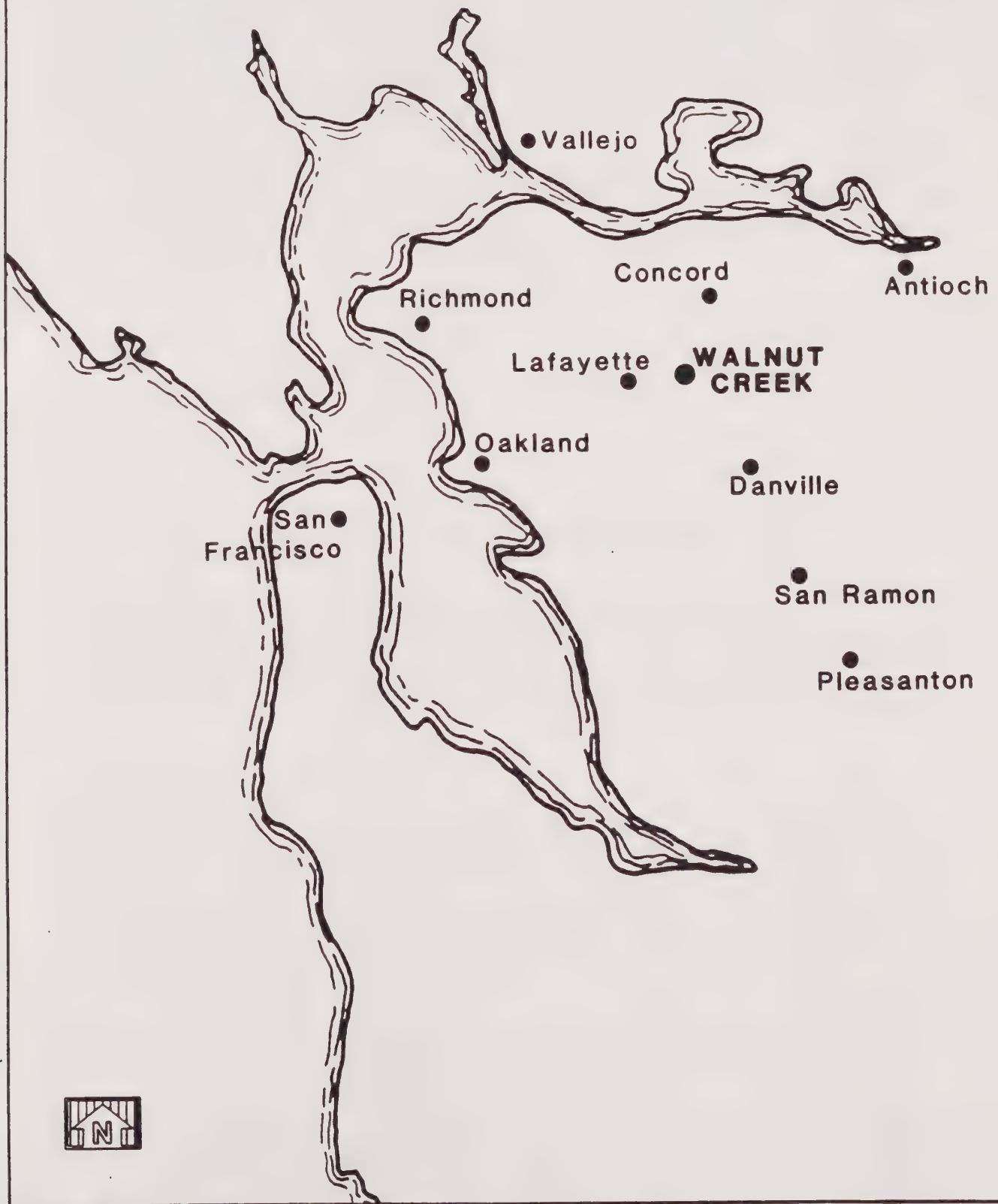
	Year 1991	Year 2005
North Central County- (Walnut Creek, Clayton, Pleasant Hill, Concord, Martinez, unincorporated)	Population 276,800	272,900
	Housing Units 110,700	119,700
Lamorinda- (Lafayette, Orinda, Moraga, unincorporated)	Population 53,600	56,000
	Housing Units 19,800	23,400
San Ramon Area- (Ran Ramon, Alamo, Danville, Black Hawk, unincorporated)	Population 110,900	120,000
	Housing Units 36,000	44,300

Source: Contra Costa County Community Development Department, General Plan Review Program, numbers rounded to nearest hundred.





FIGURE 3-4



## REGIONAL LOCATION MAP





As can be seen in the Table, population growth in the Central County is not expected to be very large. This is due in part to the fact that many cities in the central portion of the county are reaching maturity and will be experiencing only moderate amounts of residential growth in the future and in part because the household size is expected to continue to decrease (in North Central County the population is actually expected to decrease). The bulk of future population growth in the county is expected in the western and eastern portions of the county where there is more land available for residential development.

ABAG has predicted that the nine county Bay Area will continue to grow economically, adding approximately one million jobs between 1985 and 2005. The central county is expected to share in this growth. Existing and projected employment in the area is shown in Table 3-2.

Table 3-2

Employment	Year 1991	Year 2005
North Central County	144,000	161,000
Lamorinda	12,300	14,600
San Ramon Area	52,300	65,300

Source: Contra Costa County Community Development Department,  
General Plan Review Program, rounded to nearest hundred.

It appears the labor supply will not be able to keep pace with projected job growth due to lack of land for affordable housing. With much of the residential development occurring outside of central county, commuting to central county jobs and the central Bay Area is expected to increase in the foreseeable future, exacerbating traffic congestion in the central county.

#### B. Local Setting

Walnut Creek is situated at the base of Mt. Diablo in the center of the county. The City is bounded on the west and south by Las Trampas Ridge and Acalanes Ridge. Shell Ridge, a large City owned open space, cuts through the eastern part of the City. Mt. Diablo and these largely undeveloped ridges provide a scenic backdrop for the City and create natural boundaries for urban development. Preservation of these and other open space areas, has been a priority of the City for many years.

Walnut Creek is often thought of as a largely single family residential suburb. In fact, the number of single family and multifamily dwelling units are about the same, with over 12,000 of each. In addition, there are about 5,900 units of senior housing in Rossmoor.

The City is made up of distinctive neighborhoods or areas. The eastern part of the City is primarily single family residences on wide suburban

streets. The south and north parts of the City have a more rural character including narrower streets without curbs and mature vegetation. The Core Area is a blend of single and multifamily residences, offices and retail uses.

Income of City residents, as shown in Table 3-3, is high for the region.

Table 3-3

Household Income - 1987	Households	Percentage
\$70,000 or more	8618	21%
\$55,000 to \$69,999	5726	14%
\$45,000 to \$54,999	10,486	23%
\$35,000 to \$44,999	6,893	17%
\$25,000 to \$34,999	5,863	14%
\$15,000 to \$24,999	3,592	9%
Less than \$15,000	623	1%
	-----	
	41,800	

Source: General Plan Market and Jobs/Housing Study

In recent years Walnut Creek has changed from what was once primarily a bedroom community for the Bay Area job market to a regional center in its own right. Employment in the City now exceeds 56,000 persons in about 15,186,800 square feet of commercial space. However, many of the City's 66,000 residents still work in the East Bay and San Francisco, so there is extensive commuting into and out of Walnut Creek. Only about 30% of the workers employed in Walnut Creek actually live in the City.

As a result of commercial growth, the City, especially the Core Area, now has a more urban character than just a few years ago. This character reflects the regional role Walnut Creek plays in the county. There are major office centers near the BART station in the Golden Triangle, along California Boulevard, on Mt. Diablo Boulevard, and on Ygnacio Valley Road.

Broadway Plaza is one of the premier retail centers in Contra Costa. The Downtown retail area features tree lined streets with smaller, pedestrian oriented shops. There are two regional medical facilities in the City; John Muir Medical Center and Kaiser Medical Facility. The City has underscored its commitment to the arts with the recent commencement of construction on the new, enlarged performing arts center that will serve all of central county and beyond.

Recently, growth in Walnut Creek has been slow, in part because of the limited amount of available land, and in part because of Measure H restrictions. However, ABAG projects that Walnut Creek's population will increase by 3,700 persons by year 2005. This projection was based on the existing (1971/75) Plan and buildout of vacant parcels only. ABAG also projects continued growth in employment for the City and the surrounding area. For Walnut Creek alone ABAG has predicted an increase of 8,800 jobs by 2005. Whether ABAG predictions or the County predictions will be more accurate will depend on the land use designations adopted, the status of Measure H, and economic conditions in the area.



C. Existing General Plan

The existing General Plan for the city was adopted in 1971. The Core Area plan was prepared and adopted in 1975, and a specific plan for northwest Walnut Creek was adopted in 1977. Other smaller amendments have been made to the land use map since 1977.

Together, the 1971 General Plan and 1975 Core Area plans are intended to strengthen the city's position as a regional commercial center. The plans encourage office development in the Golden Triangle and retail development in the downtown. Under the existing plans, about 5,000 residential units and 15,183,200 square feet of commercial development could be built on vacant and underutilized land inside the city limits. This would bring about 11,000 residents and 49,100 employees to the City.

The 1971/75 Plan located the most intensive office development in the Golden Triangle. The areas outside the Core were designated primarily for single family residential use. Retention and enhancement of the downtown retail area, and creation of a linkage between the Main Street/Locust area and Broadway Plaza were strongly emphasized.

The Plan acknowledged that continual expansion of roadways could not solve traffic congestion. The Plan noted that the era of major roadway improvements in Walnut Creek was nearing an end due to lack of room to expand the existing network. The Plan stressed the expansion of non-auto transit such as buses and bikeways.

Finally, the Plan placed a high priority on the preservation of open space areas around the city's periphery and the addition of parks, recreation and cultural facilities. The Plan recommended the purchase of some 3,000 acres of open space (accomplished in 1974 via a citizen approved bond measure).

Since the adoption of Measure H in 1985, the existing General Plan and Measure H together have governed the density and intensity of development. However, a legal suit challenging the validity of Measure H has been filed. If the existing General Plan were to remain in effect, and Measure H were found invalid, development could proceed under the existing General Plan. Because there is the possibility that development under the existing Plan without Measure H could occur, and because this alternative would provide a "worst case" analysis, the existing General Plan without Measure H was designated as the No Project Alternative for environmental review purposes.





## CHAPTER 4: THE PROPOSED GENERAL PLAN AND ALTERNATIVES

### A. The General Plan Planning Process

The impetus to review and update the existing general plan originated in the early 1980's when Walnut Creek experienced a tremendous surge in office development. The impacts of this development (primarily traffic and visual) planted the seeds for the formation of a citizens group concerned with the impacts of growth on Walnut Creek. The result of the group's efforts was the passage of Measure H, a traffic and growth control measure which tied future development to the attainment of a .85 service level at 52 intersections throughout the City.

In 1982, prior to the passage of Measure H, the City had begun a major revision to the Core Area Plan. With passage of Measure H in November 1985, and the subsequent City efforts to devise a plan to bring the 52 identified intersections into conformance with the Measure H standards it became apparent that a major revision to the 1971 General Plan was needed. In July of 1986 it was decided to begin a major update of the city's general plan.

To initiate the update process, the City Council formed the "Walnut Creek in the Year 2000" Committee. This group of 90 citizens represented the divergent viewpoints of the city's various sectors - slow growth advocates, business persons, developers, conservationists and preservationists. Their mission was to provide policy direction in the areas of land use, housing, open space, fiscal operations, transportation and urban design. The result of the group's efforts was the "Year 2000 Report" which outlined goals and policies for each of the topic areas.

A citywide data base was developed with information on each of about 30,000 parcels in the City's Planning Area. Establishment of the data base was a key step in developing the City's computer traffic model (EMME/2) which was used to predict traffic impacts of the various general plan alternatives. The City commissioned an economic study of the Core Area to determine the retail potential of the area, and the improvements needed to enhance the retail environment of the Downtown retail district.

An outreach effort termed "the General Plan roadshow" was implemented to gather public input prior to formal public hearings. The Design Review Commission contributed substantial input on the land use and design policies as they affect the appearance of the City.

With guidance from the above sources, the Planning Commission, and City Council the Proposed General Plan was prepared.

### B. The Proposed General Plan

The proposed Walnut Creek General Plan (PGP) consists of five major elements; Community Development, Housing, Transportation, Community Resources and Public Health and Safety. Some elements are comprised of several sections, each dealing with a specific topic. Each

element or section is divided into two parts. The first part consists of the policies and implementation programs; the second part contains background information that supports the policies and programs.

The intent of the Proposed General Plan is to retain the City's position as a regional center while maintaining the quality of life that the city's residents have come to enjoy and expect. To achieve both of these goals, the Plan attempts to strike a middle ground relative to commercial development. The total amount of commercial development that would be permitted over the life of the Plan (2,700,000 square feet within the City) is similar to that which would be permitted by Measure H under the existing General Plan. The land use plan emphasizes retail over office development to address the concern that the city has a sufficient supply of office development.

One of the key goals of the PGP is to successfully link Broadway Plaza with the Main/Locust Street area to enhance the overall economic performance of the Core Area. A second goal is to insure that any additional office development be carefully reviewed to assure the attainment of design goals such as providing a transition from the more intensive office areas to the downtown.

The Plan will embody a growth management system that controls the rate of commercial development, allocating it over the life of the Plan. The Plan also links development in the Core area (both commercial and residential) to roadway improvements, restricting development until certain improvements in the Core Area are funded in the city's Capital Improvement Projects budget. This approach responds to citizen concerns about development proceeding in the absence of traffic mitigation.

The Plan recognizes that, due to existing land use patterns both within and outside of the city, there are limits to the relief that can be achieved through roadway improvements. Certain intersections will continue to operate at capacity despite implementation of traffic mitigations. Solutions to these conditions, if they exist, can only be achieved at regional and subregional levels which the City will continue to pursue in the forthcoming years.

The PGP would allow an additional 7,000 residential units in the incorporated area, about 2,000 more than the existing plan or the Measure H alternative. Most of this increase would be multifamily units in the Core Area on lands previously identified for commercial development. The intent of increasing the number of residential units is to improve the jobs/housing balance in the City, and to slow the increase of housing costs.

As mentioned above, the PGP identifies a list of roadway improvements designed to reduce the increases in traffic congestion that studies have indicated will occur no matter which plan is adopted. These improvements are an integral part of the PGP, and future development in the Core Area cannot proceed without these improvements being funded.



The number of residential units and the amount of commercial square footage possible under the proposed plan include development of all vacant and underutilized parcels in the incorporated city. Given market fluctuations, it is unlikely that this level of development will occur during the lifetime of the plan. (For additional discussion of buildout refer to Chapters 1 and 2 of the Plan.)

### C. The Alternatives

Three alternatives to the Proposed General Plan are considered in this EIR. The existing General Plan or "No Project Alternative" was described in Chapter 3. The "Measure H Alternative" and "Reduced Measure H Alternative" are briefly discussed below. Each of the alternatives is summarized in Tables 4-1 and 4-2.

The Measure H Alternative would essentially be a continuation of existing growth patterns. The Proposed General Plan land use designations would be adopted but development of any parcel would be subject to Measure H limitations (10,000 square feet commercial, 30 residential units in the Core Area, and 10 units outside the Core) until the required traffic reductions were achieved. This alternative would allow about 5,100 residential units and about 2,441,100 square feet of commercial development. Both vacant parcels and parcels not developed to the Measure H limits could be built upon.

The "Reduced Measure H Alternative" (RHA) was evaluated along with the existing and proposed General Plans throughout the impact analysis table. This alternative was selected in response to citizen concerns that growth in Walnut Creek should be extremely limited due to existing traffic congestion.

Under this alternative, vacant residential and commercial parcels would be permitted to develop per Measure H exemptions. No reuse of underutilized residential parcels would be permitted except as discussed below. This would mean that if a parcel had a single family home on it, and the General Plan and zoning would normally permit additional development to occur, the additional development potential would not be allowed.

330,000 square feet of additional commercial development in addition to buildout of vacant parcels would be permitted under this alternative. This number is taken directly from the market analysis study conducted for the General Plan update and represents the additional retail square footage the City's market analyst projected for the underutilized parcels in the Core area. It is expected that the 330,000 square feet would be constructed on parcels not now developed to the Measure H limit in the form of additions or redevelopment. (A copy of the economic report is available from the City Planning Division).





Table 4-1

Buildout of the General Plan and Alternatives  
Incorporated City Limits Only  
Increment over Existing Development

	Existing	Proposed General Plan	No Project	Measure H	Reduced H
Units	30,100	7,000	5,000	5,100	1,800
Population	66,200	15,400	11,000	11,200	4,000
Sq. Ft.	15,186,800	2,700,000	15,183,200	2,441,100	622,600
Jobs	56,000	8,600	48,500	7,800	2,000

Table 4-2

Buildout of the General Plan and Alternatives  
General Plan Planning Area  
Increment over Existing Development

	Existing	Proposed General Plan	No Project	Measure H	Reduced H
Units	34,100	11,900	8,300	10,100	3,200
Population	75,000	26,200	18,300	22,200	7,000
Sq. Ft.	16,205,900	9,610,300	15,463,000	2,764,900	632,300
Jobs	60,300	8,600	48,500	7,800	2,000

Source: CDD Data Base. October 14, 1988. Buildout includes vacant and underutilized parcels. Existing includes pipeline as of September 1988. Population determined by multiplying number of units by 2.2 persons per household. All numbers rounded to nearest hundred.





## CHAPTER 5: IMPACTS AND MITIGATIONS

### A. Existing Conditions

The discussion of existing conditions for each of the impact areas is contained in the background section of each element. As allowed by CEQA, such information can be referenced. The table below indicates where each topic area is addressed in the General Plan.

Table 5-1  
Location of Description of Existing Conditions

<u>Topic</u>	<u>Location in General Plan</u>
Natural and other Hazards	Public Safety Element
Hydrology, Water Quality, Erosion	Conservation and Open Space Element and Public Safety Element
Vegetation and Wildlife	Conservation and Open Space Element
Land Use	Community Development Element
Jobs/Housing	Community Development and Housing
Traffic	Transportation Element
Community Services	Community Development Element
City Design	Community Development Element
Energy	Community Development Element
Noise	Public Safety Element
Air Quality	Conservation and Open Space Element
Archaeological/Historical Resources	Conservation and Open Space and Community Development Elements
Fiscal	Not Addressed

### B. Impacts and Mitigations

This section discusses the impacts and associated mitigations of the Existing General Plan, the Proposed General Plan (PGP) and the Reduced Measure H alternative (RHA). Impacts and mitigations for these three development levels are summarized side by side in the following matrix to facilitate a comparison of the scenarios.

In comparison to the other alternatives which allow either much more or much less development, the Measure H Alternative is quite similar to the PGP. Since it is the intent of this EIR to analyze as broad a range of development alternatives as possible within the frame work of the matrix, the Measure H Alternative was compared to the other three alternatives in the discussion following the matrix.



## EIR IMPACTS AND MITIGATIONS

### Impact Category - NATURAL HAZARDS

#### Existing General Plan

#### Proposed General Plan

#### Reduced Measure H

#### Impact

Buildout development under the Existing Plan over current 1988 conditions would result in 11,000 additional residents and 48,500 additional persons in the daytime work force being exposed to natural and other hazards (such as seismic, flood, wildfire, and hazardous materials) and increase the potential for some of these hazards to occur.

#### Mitigations in the Plan

The Existing Plan provides:

- o guidelines for seismic safety standards in Appendix 12 including the avoidance of hazardous areas for high density residential, commercial and other buildings; prevention of structure placement over fault traces in the Concord fault system; and conformance to the Uniform Building Code.
- o Hillside area development policies (Appendix 7)
- o a policy for the development of Emergency Disaster Plans to be coordinated by City, County, Region and State authorities.
- o a policy for grassland fire control is provided through managed grazing (p. 2-12 #5)
- o no policies for incorporating provisions of the County's Hazardous Waste Management Plan are provided. The Existing Plan should be amended accordingly.
- o Some specific policies for flood and erosion control are provided under the Hill Area Development policy (pp. A-7-3).

#### Impact

Development under this Plan would result in impacts similar to the Existing General Plan except 15,400 additional residents over current 1988 conditions would be exposed to natural and other hazards while 8,600 persons in the daytime work force would be affected.

#### Mitigations in the Plan

Plan policies require the following:

- o the avoidance of hazardous areas or the designation of low-density or passive uses for these areas (Policy 2, Public Safety Element)
- o site-specific geotechnical studies (Program 1.1, PS)
- o conformance of projects to the latest building standards including earthquake reinforcement requirements (Program 1.2, PS)
- o implementation of public awareness programs and the "Civil Defense and Disaster Operation Plan" (Program 1.3, 1.4, PS)
- o maintenance of structural and grassland fire control programs (Policy 5, PS)
- o conformance with the State and Federal hazardous material legislation and participation in the County's Hazardous Waste Management Plan (Programs 6.1 and 6.2, PS)
- o controlling flood hazards through the City's Flood Control Ordinance and creek preservation policies (Program 4.1, PS, Policy 4, Conservation and Open Space (COS) Element, Policy 13, Community Design CDes)

#### Impact

Development under this plan would be similar to Proposed General Plan but 4,000 additional residents and 2,000 additional persons in the work force would be exposed to natural and other hazards.

#### Mitigations in the Plan

Same as Proposed General Plan





Impact Category -  
HYDROLOGY, WATER QUALITY, EROSION

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
<p>Site development in the vicinity of creeks and waterways could increase erosion hazards, surface runoff and impervious surfaces. Higher intensity development tends to encourage creek channelization as a necessary flood control measure. The higher intensity development in the Core Area allowed under the existing Plan increases the likelihood of these impacts.</p>	<p>Site development in the vicinity of creeks and waterways could increase erosion hazards, surface runoff and impervious surfaces. Although the intensity of development is less than that permitted under the Existing Plan, pressures to protect existing property and new development through creek channelization will increase.</p>	<p>Site development will result in similar impacts to the Proposed General Plan but will be proportionately less due to limited development intensity.</p>
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
<p>Existing Plan provides:</p> <ul style="list-style-type: none"> <li>o Open Space and Conservation policies for creek preservation and enhancement.</li> <li>o Safety policies for the protection of watersheds and to minimize storm runoff and erosion.</li> <li>o Hillside Development policies to reduce cut and fill operations for flood, erosion and aesthetic control.</li> </ul>	<p>Plan policies require the following:</p> <ul style="list-style-type: none"> <li>o enforcement of the Encroachment, Subdivision, and Grading ordinances to prevent waterway disturbance (Program 4.2, COS, Program 4.4 HPD req.)</li> <li>o project review and project-specific mitigation measure requirements (Program 4.1, COS)</li> <li>o retaining creeks in their natural state (Policy 4, COS)</li> <li>o State Fish and Game and U.S. Army Corps of Engineer project review (Program 4.3, COS)</li> </ul>	<p>Same as Proposed General Plan</p>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
<p>Development could increase runoff which carries litter, oil, grease and other pollutants into storm sewers and creek channels.</p>	<p>Development could increase runoff which carries litter, oil, grease and other pollutants into storm sewers and creek channels.</p>	<p>Similar but less than the Proposed General Plan</p>
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigation in the Plan</u>
<p>Hillside Development policies require consideration for flood and erosion control but provide no direct guidance for controlling pollutants and should be amended accordingly. Page 7-5 Program 4 provides for the establishment of public awareness program on the use of pesticides and fertilizers.</p>	<p>The Growth Management System requires adequate drainage facilities to accommodate increased flows from new development, (Community Development Element, Growth Management Section, Policy 1)</p>	<p>Same as Proposed General Plan</p>





Impact Category (continued) -  
HYDROLOGY, WATER QUALITY, EROSION

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Additional Mitigations</u>	<u>Additional Mitigations</u>	<u>Additional Mitigations</u>
Amend Plan as provided above	Review the City's street cleaning program to assess its effectiveness in reducing the amount of pollutants entering waterways and provide appropriate policy.	Same as Proposed General Plan
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Continued development under the Existing Plan may decrease quantities of fresh water filtering into the Clayton-Ygnacio Valley underground aquifer.	Development may decrease quantities of fresh water filtering into the Clayton-Ygnacio Valley underground aquifer.	Similar to Proposed General Plan
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
The 1974 Open Space bond issue allowed for the purchase of Shell and Lime ridges. Current creekway preservation policies are provided but should be strengthened to protect these areas and remaining natural creeks.	Policies in the plan support the continued preservation of Shell and Lime ridges and the remaining natural creeks (Policies 1, 4 & 6 COS) Hillside areas are designated for low density development, thus maximizing retention of open space areas.	Same as Proposed General Plan
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Continued development under the Existing Plan would increase water demand for domestic, commercial and other uses.	Development would increase water demand for domestic purposes which is the highest water consuming use. Consumption for commercial and other uses would increase but at a significantly reduced rate than the Existing General Plan.	Water usage impacts would be less under this option due to reduced commercial and residential development under either the Existing or Proposed Plans.
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
Existing Conservation program encourages greater use of native plant types.	The Growth Management System requires verification of adequate water supply prior to project approval (Policy 1, CD)	Same as Proposal General Plan
<u>Additional Mitigations</u>	<u>Additional Mitigations</u>	<u>Additional Mitigations</u>
The City promotes water conservation programs through the Public Information Office and will be incorporating Landscape Water Conservation Policy Guidelines for commercial projects into the planning process. Growth management measures should be added to insure adequate water supply for all new development.	The City will be incorporating Landscape Water Conservation Policy Guidelines for commercial projects into the planning process.	Same as Proposed General Plan



Impact Category -  
**VEGETATION AND WILDLIFE**

Existing  
General Plan

Proposed  
General Plan

Reduced  
Measure H

Impact

Impacts to the biotic community are limited as most development will occur in areas already built. (e.g. Core Area and infill development). Exceptions include the residential areas permitted in the La Casa Via, Newhall, Rancho Paraiso, and Rossmoor areas as well as several other small hillside pocket areas.

Mitigations in the Plan

The Existing Open Space and Conservation Policies encourage the retention of grazing areas on the West slopes of Mt. Diablo and to continue the City Open Space program to preserve large natural areas. Additional creekway policies encourage the retention of riparian vegetation. No specific policy provisions for the preservation of heritage trees or significant trees groupings is identified in the existing plan and should be amended accordingly. The Plan should also be amended to account for an up-to-date open space inventory.

Impact

Development under the Plan could cause degradation of creek water quality or physical changes in riparian habitat which could reduce or alter associated fish and wildlife populations.

Mitigations in the Plan

The Existing Plan Open Space and Conservation Policies encourage the retention of significant natural features including creeks, riparian corridors, and stock ponds to be maintained in their natural state.

Impact

Similar to Existing Plan

Mitigations in the Plan

The Plan's policies and implementation programs preserve the richest animal and plant habitat areas and their associated wildlife and riparian corridors (Policies 2, 3, 4, COS). Significant or "heritage" trees shall be preserved under the City's Tree Preservation Ordinance (Policy 4, Program 4.5, COS) The City Design section also contains policies that address preservation and enhancement of natural vegetation areas (Policy 13; Programs 13.1, 2, & 3).

Impact

Similar to Existing Plan except more policy guidance is provided. (See mitigation blow)

Mitigations in the Plan

The Plan requires significant natural features including creeks, riparian corridors, and stock ponds to be maintained in their existing or natural state (Policy 4, COS)

Impact

Similar but less than the Proposed General Plan due to reduced residential development and commercial development

Mitigations in the Plan

Same as Proposed General Plan

Impact

Similar but less than Proposed or Existing General Plan.

Mitigations to the Plan

Same as Proposed General Plan





Impact Category -  
**COMMUNITY SERVICES AND FACILITIES**

**Fire**

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Development under the Existing Plan will continue to increase fire hazard and will increase additional demand for fire fighting resources particularly fringe development adjacent to grasslands.	Development under the proposed Plan will increase fire hazard and will increase additional demand for fire fighting resources particularly fringe development adjacent to grasslands.	Same as Proposed General Plan
<u>Mitigation in the Plan</u>	<u>Mitigation in the Plan</u>	<u>Mitigations in the Plan</u>
The Existing Plan designates sites for two Fire Stations on the Land Use Map and establishes policies for site location.	The Growth Management System calls for the maintenance of a 3-5 minute response time for the City. (Policy 2, GM) Growth Management System also requires verification of adequate water supply prior to project approval. (Policy 1, GM) The Fire District Boundary Map included in the Plan designates the addition of a fire station at Wiget and Walnut Avenue (previously approved) which will provide needed resources and adequate response times to the insufficiently serviced Northgate area. Also designated is the relocation of the Whyte Park Avenue/Boulevard Way station closer to Rossmoor. Plan policies and programs reinforce fire prevention and safety practices especially for development on the periphery of fire hazard areas. (Policy 5, PS). The Plan assigns low density development or other low intensity uses and discourages high density uses for wild land fire hazard areas (Policy 2, PS).	Same as Proposed General Plan

**Police**

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impacts</u>	<u>Impacts</u>	<u>Impacts</u>
Development under the Existing Plan would continue to increase the demand for police services.	Development under the Plan would increase demand for police protection and services.	Similar but less than the Proposed General Plan





Impact Category (continued) -  
COMMUNITY SERVICES AND FACILITIES

Police

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
The existing Plan provides objectives and standards for residential and commercial crime prevention.	The Growth Management System requires the maintenance of a sufficient police response time. (CD, Growth Management section, Policy 2)	Same as Proposed General Plan

Schools

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impacts</u>	<u>Impacts</u>	<u>Impacts</u>
Continued development under the Existing Plan to buildout will increase current enrollment of all school age children from between 2000 to 2100, where an existing surplus capacity of between 1900 to 2000 is available. As the various school districts reach enrollment capacity, district boundary reconfiguration, additions to existing schools and reopening closed schools will meet projected needs without developing new schools. Parents who are employed within local school District boundaries are entitled to place children in those districts.	Development under the Plan to buildout will increase current enrollment of all school age children from between 2800 to 2900 where 1900 to 2000 surplus capacity exists. District reconfiguration, additions to existing schools, and opening closed schools will meet projected needs without the development of new schools.	Only 700 to 800 additional school age children would be added to school enrollment requiring no mitigation.
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
No mitigation anticipated.	No mitigation anticipated although the Growth Management System requires the provision of adequate school facilities on a project by project basis (CD, Growth Management, Policy 1).	None required, Growth Control provisions same as Proposed General Plan.



Impact Category (continued) -  
**COMMUNITY SERVICES AND FACILITIES**

**Parks and Recreation**

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impacts</u>	<u>Impacts</u>	<u>Impacts</u>
Continued growth under Existing Plan will create demand for more parks. Current 1988 deficit is 9.3 acres based on 5 acres per 1,000 people.	Additional growth will create demand for more park areas.	Similar but less than the Proposed General Plan
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigation in the Plan</u>
Some major park areas have been designated. Plan should be amended to account for up to date park and land bank inventory.	<p>The Growth Management System sets a five acre/1,000 people parkland standard. (Policy 2 GM) Based on 2005 projections, the city will have a 104 acre deficit of parkland. 44 additional acres are proposed for acquisition and an additional 50 acres of activity area may be available in open space reserves, resulting in a 10 acre deficit of parkland. Plan policies also require the following:</p> <ul style="list-style-type: none"> <li>o maintenance of a parkland acquisition list (Program 2.1, Parks and Recreation Element (P&amp;R)</li> <li>o provision of project recreation facilities for new development and redevelopment either on or off site (Policy 1, P&amp;R)</li> <li>o the acquisition of school facilities as schools close and development of these sites as permanent recreation facilities (Parks and Recreation Element (P&amp;R). Policy 3)</li> <li>o the acquisition of additional community gymnasium space (Program 6.1, P&amp;R)</li> <li>o the maintenance of adopted park and recreational facilities standards (Policy 7, P&amp;R)</li> </ul>	Same as Proposed General Plan but no deficit would occur
<u>Additional Mitigations</u>	<u>Additional Mitigations</u>	<u>Additional Mitigation</u>
Develop open space activity areas in accordance with the open space area Master Plans and amend the Plan accordingly.	Develop open space activity areas in accordance with the open space area Master Plans.	Same as Proposed General Plan





Impact Category (continued) -  
COMMUNITY SERVICES AND FACILITIES

Solid Waste Disposal

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Continued growth under the Existing Plan will add to the cumulative impact on the region's landfill site which will reach capacity in 1989.	Additional city growth will add to the cumulative impact on the region's landfill site which will reach capacity in 1989.	Similar but less than the Proposed General Plan
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
No current policies addressing landfill are included in the existing Plan.	Discussion of the proposed Recycling Ordinance is discussed in the Community Development Element of the Proposed Plan. The City will continue to participate in and encourage recycling programs for the community. No policies are specifically provided.	Same as Proposed General Plan
<u>Additional Mitigations</u>	<u>Additional Mitigations</u>	<u>Additional Mitigations</u>
The County Board of Supervisors is in the process of selecting an alternate landfill site. The City participates in and encourages recycling programs for the community. Appropriate policy provisions could be added to the document. Relevant discussion and analysis should be added to the Existing Plan.	The County Board of Supervisors is in the process of selecting an alternate landfill site. The City also participates in and encourages recycling programs for the community which is discussed in the CD Element, (Facilities and Services Sec.) Appropriate policy provisions could be added to the document.	Same as Proposed General Plan

Sewerage

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Continued growth under the Existing Plan would not exceed sewer capacities for either City or regional growth.	Although additional population would increase sewage flows, the Martinez sewer treatment plant capacity would not be exceeded by either Walnut Creek's growth or expected regional growth.	Same as Proposed General Plan





Impact Category (continued) -  
**COMMUNITY SERVICES AND FACILITIES**

**Sewerage**

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
None provided	No mitigation is necessary, however, the Plan's Growth Management System links development to the availability of sewer services (CD, Growth Management, Policy 1)	Same as Proposed General Plan

**Public Utilities**

<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Continued development under the Existing Plan would continue to increase demands on these facilities but no new major facilities are required to accommodate either Walnut Creek or regional growth.	Demand for these utilities would increase but no new major facilities would be required	Similar but less than the Proposed General Plan
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
No mitigation required	No mitigation required	Same as Proposed General Plan

**Archaeological/Historical Resources**

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
No known archaeological resources will be impacted as a result of the Plan. It is possible that future development could adversely effect currently unknown resources.	Same as Existing Plan	Similar to Proposed General Plan
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
None provided. Plan should be amended to provide mitigations outlined under PGP.	All projects involving the disturbance or breaking of ground will be sent to the California Archaeological Inventory to determine if an archaeological study is necessary. If resources are encountered during a project, a qualified archaeologist will be brought in to evaluate the situation. (Programs 8.1, 8.2 COS)	Same as Proposed General Plan



Impact Category (continued)-

ENERGY

Existing  
General Plan

Proposed  
General Plan

Reduced  
Measure H

Additional Mitigations

Amend Existing Plan to incorporate the mitigations provided in the proposed Plan.

Additional Mitigations

- o The Subdivision Ordinance which provides findings for the design of subdivisions to allow for future solar heating and cooling opportunities has been added to the Plan (Prog. 18.2 HE)
- o PG&E provides and promotes various energy conserving programs within the community. A plan policy may be added to assist PG&E in the dissemination of Energy related material.

Additional Mitigations

Same as Proposed General Plan

Impact Category -

LAND USE

Existing  
General Plan

Proposed  
General Plan

Reduced  
Measure H

Impact

Continued development under the Existing General Plan will provide for further urbanization of the Core Area and continue existing pattern of development including height, intensity standards, setback provisions, etc. This continued development may stress infrastructure capacity including streets, community facilities.

Impact

Development under the Proposed Plan significantly reduces height and intensity standards from that permitted under the Existing Plan. The PGP provides modifications to the City Design Component of the Community Development Element for building heights, Floor Area Ratios, frontage setbacks among other design and land use considerations. A growth management system to monitor development against availability of city service levels is overlaid upon permitted development.

Impact

Same as PGP but provides further reduction in Core Area intensity.





Impact Category (continued)-

LAND USE

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Mitigation</u>	<u>Mitigation</u>	<u>Mitigation</u>
Amend Existing Plan to provide service level standards necessary to insure that service level and infrastructure capacity will be addressed.	Following adoption of a General Plan the City must amend the Zoning Ordinance to insure consistency between these two Planning Documents. Ordinance revisions must provide service level standards and a development allocation system as a companion document to the General Plan Growth Management System.	Same as PGP
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
The Existing General Plan would maintain existing Land Use Patterns.	The PGP essentially maintains existing land use patterns at reduced levels of intensity and building height in the Core Area. Some areas have been converted from commercial to residential use creating potential conflicts in abutting land uses.	Same as PGP but intensity and density level of Core Area development would be further restricted.
<u>Mitigation</u>	<u>Mitigation</u>	<u>Mitigation</u>
None required	Following adoption of the General Plan, the Walnut Creek Zoning Ordinance must be revised to be consistent with the Proposed General Plan. In addition, all new development is subject to Design Review as well as other discretionary approvals. Residential and mixed use projects interfacing with commercial development must be scrutinized on a case by case basis to insure compatibility.	Same as PGP.



Impact Category -  
JOBS AND HOUSING

Existing  
General Plan

Impact

The July 1988 Jobs/Housing study, prepared by EPS, estimates that by 2005 the demand for Walnut Creek housing due to increased local and subregional employment will out pace housing added to existing supply by 6785 units. The Proposed 1989 Housing Element, which is a five year document, estimates that the shortfall in the Walnut Creek housing supply by 1995 will be 2267 residential units.

Continued development under the Existing Plan to buildout will provide an additional 5,000 units and 15,183,200 sf of commercial development in the incorporated city limits. This would result in a 17% increase in City population; an 87% increase in the number of jobs; additional demand for local housing; and a reduction in the amount of affordable housing, particularly in the low and moderate income range.

Mitigation

None. This would remain an unmitigated impact. Limiting commercial growth could have some positive effects on Jobs/Housing balance.

Proposed  
General Plan

Impact

An additional 7,000 residential units and 2.7 million sf of commercial development, within the existing city limits, added to current levels of development would increase the population by 23% but create a 17% increase in jobs. The demand for local housing, although less severe than the existing GP, will continue to increase housing costs creating a shortage of affordable housing.

Mitigation

Although the reduction of commercial sq. ft. and the addition of housing over the Existing Plan would have a positive effect on the jobs/housing balance there will remain an unmitigated impact to the supply of affordable housing. The Housing Element proposes several policies and programs to mitigate housing needs.

Reduced  
Measure H

Impact

An additional 1,800 units and 622,600 sf of commercial development added to current levels of development would increase the population by 6% and increase jobs by 3.6%. The restriction on housing unit development would perpetuate the city's jobs/housing imbalance. The demand for local housing will be severe requiring many Walnut Creek workers to reside elsewhere in the region.

Mitigation

The significant discrepancy of 1,800 units vs. a projected shortfall of 6,785 units by 2005 will result in an unmitigated impact. The Growth Management Program could be amended to permit development of underutilized residential parcels or relaxation of residential development restrictions. The Housing Element proposes several policies and programs to mitigate housing needs.





Impact Category-  
TRAFFIC

<u>Existing</u> <u>General Plan</u>	<u>Proposed</u> <u>General Plan</u>	<u>Reduced</u> <u>Measure H</u>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Regional growth outside of Walnut Creek together with continued development under the Existing Plan will result in increased traffic congestion on Walnut Creek streets. Although the actual number of intersections exceeding a service level capacity greater than 1.00 was not determined, it would be greater than that analyzed under the PGP.	Regional growth outside of Walnut Creek together with continued development under the PGP will result in increased traffic congestion on Walnut Creek streets. 31 am peak intersections and 41 pm peak intersections will exceed a service capacity of 1.00.	Regional growth outside of Walnut Creek together with continued development under the Reduced Plan will result in increased traffic congestion on Walnut Creek streets. 23 am peak intersections and 30 pm peak intersections will exceed a service capacity of 1.00
<u>Mitigation in Plan</u>	<u>Mitigation in Plan</u>	<u>Mitigation in Plan</u>
The City should continue to work with regional agencies to determine regional projects (including TSM measures) that can be developed to mitigate future congestion. Policy provisions should be incorporated into the Plan accordingly.	<ul style="list-style-type: none"><li>o The City will continue to work with regional agencies to determine regional projects (including TSM measures) that can be developed to mitigate future congestion. (CD, Regional Planning section, Policy 2)</li><li>o The City will implement the policies and programs set forth in the Transportation Element (Policies 1-8)</li></ul>	Same as proposed.
<u>Additional Mitigations</u>	<u>Additional Mitigations</u>	<u>Additional Mitigations</u>
<ul style="list-style-type: none"><li>o Construct an East-West freeway from I-680 to Eastern City Limits. This mitigation will have residual impacts if implemented.</li><li>o Construct a new roadway along the Southern Pacific right-of-way between Ygnacio Valley Road and Newell Avenue. This mitigation will have residual impacts if implemented.</li><li>o Signal optimization to mitigate regional traffic impacts. (residual regional impact if implemented)</li></ul>	<ul style="list-style-type: none"><li>o Construct an East-West freeway from I-680 to Eastern City Limits. (residual impact if implemented)</li><li>o Construct a new roadway along the Southern Pacific right-of-way between Ygnacio Valley Road and Newell Avenue. This option alone will result in 24 am and 40 pm peak intersections exceeding LOS of 1.00. (residual impact if implemented)</li><li>o Signal optimization to mitigate regional traffic impacts. (residual regional impact if implemented)</li></ul>	<ul style="list-style-type: none"><li>o Construct an East-West freeway from I-680 to Eastern City Limits. This option alone will result in 8 am and 18 pm peak intersections exceeding LOS of 1.00. (residual impact if implemented)</li><li>o Construct a new roadway along the Southern Pacific right-of-way between Ygnacio Valley Road and Newell Avenue. (residual impact if implemented)</li><li>o Signal optimization to mitigate regional traffic impacts. (residual regional impact if implemented)</li></ul>



Impact Category (continued)-

TRAFFIC

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Continued Development under the Existing Plan will result in significant congestion on Walnut Creek Streets	Development under the PGP will result in increased traffic congestion on Walnut Creek streets at levels less than Existing Plan but several intersections will exceed service level capacity. (see impact above)	Similar but less than the Proposed General Plan. (see impact above)
<u>Mitigation in Plan</u>	<u>Mitigation in Plan</u>	<u>Mitigation in Plan</u>
Existing Plan provides a list of Capital Improvement Projects to improve Core Area Street Systems. The projects list should be expanded to reflect improvements proposed in the PGP.	The Plan includes a series of roadway improvements to address roadway impacts. (Policy 3; Program 3.1 TRNS)  Growth Management System will meter development in conjunction with roadway improvements. (CD, Growth Management, Policy 1)	Same as PGP
<u>Impact</u>	<u>Impact</u>	<u>Impact</u>
Residential neighborhoods will continue to be impacted by Regional local traffic diverted from congested arterials. Impacts would be greater than either PGP or RMHP.	Residential neighborhoods will be impacted by Regional and Local traffic diverted from congested arterials.	Regional impacts would be the same but local traffic impacts would be somewhat less than Proposed General Plan.
<u>Mitigation in Plan</u>	<u>Mitigation in Plan</u>	<u>Mitigation in Plan</u>
If feasible, amend plan to provide for traffic barriers to be installed in and for affected neighborhoods.	If feasible, traffic barriers will be installed for the affected neighborhoods. (Program 7.1 TRNS)	Same as PGP.
<u>Additional Mitigations</u>	<u>Additional Mitigations</u>	<u>Additional Mitigations</u>
Construct a new roadway along the Southern Pacific right-of-way between Ygnacio Valley Road and Newell Avenue. (This mitigation would result in residual impacts)	Construct a new roadway along the Southern Pacific right-of-way between Ygnacio Valley Road and Newell Avenue. (This mitigation would result in residual impacts)	Same as PGP.





Impact Category -  
AIR QUALITY

Existing  
General Plan

Proposed  
General Plan

Reduced  
Measure H

Impact

An Air Quality Analysis was not conducted to determine concentrations for CO2 levels at congested intersections based on buildout of the Existing General Plan.

Impact

Although traffic volumes and congestion will increase, standards for local concentrations of carbon monoxide will not be exceeded as newer vehicles are put into service that maintain EPA air quality standards replacing vehicles not meeting air quality standards. Under today's conditions the carbon monoxide standard has been exceeded at some intersections. The Plan will contribute to the mitigation of this impact through a variety of policies in the Transportation Element. These policies include TSM, increasing transit and expanding bikeways and pedestrian ways.

Impact

Same as proposed PGP.

Mitigations in the Plan

The Conservation and Open Space Element provide for: 1) public transportation system, 2) revision of building code standards, and 3) preservation of large open space areas as air pollution mitigations. (COS p.7-5 Prog. 5) An independent Air Quality Analysis should be conducted and the Existing Plan amended accordingly.

Mitigations in the Plan

None required as the Plan does not cause standards to be exceeded.

Mitigations in the Plan

Same as proposed plan.

Impact

An Air Quality Analysis was not conducted to determine the regional effects of hydrocarbons or ozone precursor concentrations. It is assumed that these increases would be greater than those impacts identified under the PGP.

Impact

The Proposed General Plan would increase regional emissions by 1,835 pounds per day for hydrocarbons and 3,280 pounds per day of oxides of nitrogen. These increases are equivalent to 1.9% and 4.5% of current county-wide automobile emissions, respectively. These increases exceed Air Quality District Regional Standards.

Impact

This Plan Alternative would increase regional emissions by 427 pounds per day for hydrocarbons and 720 pounds per day for oxides of nitrogen. These increases are equivalent to 0.5% and 0.9% of current county-wide automobile emissions, respectively. These increase do not exceed Air Quality District standards.



Impact Category (continued)-  
AIR QUALITY

<u>Existing General Plan</u>	<u>Proposed General Plan</u>	<u>Reduced Measure H</u>
<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>	<u>Mitigations in the Plan</u>
<p>No mitigations provided. The Plan should be amended to provide those additional mitigations indicated under the Proposed General Plan.</p>	<p>There will remain an unmitigated cumulative impact in regional ozone levels despite the following mitigations which are intended to reduce auto emissions.</p> <ol style="list-style-type: none"> <li>1. The Proposed General Plan limits commercial development to 2.7 million square feet.</li> <li>2. Walnut Creek's TSM Ordinance will reduce total trip generation and result in incentives for non-automobile travel.</li> <li>3. City policy mandates the continuance of its leadership role in regional transportation solutions through TRANSPAC, and the County Transportation Partnership, and the Contra Costa County Transportation Authority. (CD, Regional Planning, Policy 2,)</li> <li>4. The Proposed General Plan contains policies which support continued development and expansion of the City's bikeway system. (Policy 1; Prog 1.1-1.3 TRNS)</li> <li>5. The plan's land use policies support housing in the downtown area close to jobs and shopping areas, and encourage upgrading the downtown retail district to enhance pedestrian oriented shopping. (CD, Commercial section, Policy 1)</li> <li>6. The plan contains design and transportation policies to enhance pedestrian activity throughout the city. Policy 3-6, 8 &amp; 13 CDES; Policy 1 TSM, TRNS, Pedestrian section)</li> </ol>	<p>Although none required, the General Plan policies mentioned under "Mitigations for the PGP" would further reduce the levels generated by the Reduced H alternative.</p>





Impact Category -  
**NOISE**

Existing  
General Plan

Impact

Buildout under the existing General Plan will increase Noise levels beyond those anticipated for the Proposed General Plan at identified corridors indicated in the adopted Noise Element particularly along freeway routes.

Mitigations in the Plan

The existing noise element identifies noise level contours and sets forth performance criteria, decibel maximums and methods of noise compliance for new development. The existing Plan could be further enhanced by adopted updated noise attenuation principles provided in the PGP.

Impact Category -  
**FISCAL**

Existing  
General Plan

Impact

No fiscal analysis was conducted for buildout of the existing General Plan on an annual basis. The annual surplus would be expected to significantly exceed the anticipated surplus of the PGP due to the greater amount of commercial development

Mitigation

None required. A comprehensive fiscal analysis could be conducted should the no project option be implemented

Proposed  
General Plan

Impact

Sound levels would increase along streets due to increased traffic volumes. Noise due to other transportation facilities is not expected to increase significantly.

Mitigations in the Plan

The noise element of the proposed General Plan contains policies which mitigate this impact including standards for indoor and outdoor noise levels, criteria for determining when a noise study is required and guidelines for land use and noise compatibility. (Policies 1.23, Programs 1-3, Public Safety Element, Community Noise Section)

Proposed  
General Plan

Impact

Buildout would result in a surplus of \$3 million annually.

Mitigation

None required

Reduced  
Measure H

Impact

Similar but less than the General Plan

Mitigations in the Plan

Same as Proposed General Plan.

Reduced  
Measure H

Impact

Buildout would result in a surplus of \$700,000 annually.

Mitigation

Same as proposed plan.



## C. Additional Discussion of Impacts and Mitigations

The following section provides additional discussion of impacts and mitigations of the Proposed Plan. This section also provides a comparison of the Proposed Plan to the three alternatives for each of the policy areas.

### 1. Land Use

#### Proposed Plan

The intent of the proposed land use plan is to deemphasize office development, foster retail development and encourage residential development near downtown, in the Golden Triangle and near Broadway Plaza. The proposed Plan redesignates a portion of the Broadway Triangle, the Kaiser parking lot on Newell and an area south of Mt. Diablo for high density housing. These areas were formerly designated for commercial development. The intent is to provide more housing within the Core close to shopping and employment centers.

#### Comparison of Alternatives

The Existing Plan would allow about 28% less residential units and population, and 560% more commercial square feet and jobs than the PGP. These figures assume buildout of vacant and underutilized parcels within existing City limits. The appearance of the Core Area would change considerably under this alternative since the permitted development would about double what is currently existing.

The Measure H Alternative would allow about the same amount of commercial development as would be allowed as the PGP (2.7 million square feet) but would allow about 27% less residential development. Because of the Measure H restrictions on commercial development (10,000 square feet per lot) implementation of this alternative could result in buildings that are visually incompatible with surrounding existing structures. Also, because of land economics, large parcels probably would not develop unless it were with one of the uses exempted under Measure H (such as senior housing or medical offices).

The Reduced Measure H Alternative would only permit development of vacant residential and commercial parcels allowing about 1,840 residential units and 622,600 square feet of commercial space. This alternative would allow 75% less units and population than the PGP, and 77% less commercial square feet and jobs.

Visually, the City could remain much as it is today as the amount of vacant developable land is limited. If the larger parcels did develop under H limitations, the scale of new development could contrast sharply with surrounding development, given the Measure H limitations of 10,000 square feet per parcel.

## 2. Jobs/Housing Balance

### Proposed Plan

The Proposed Plan's goals and policies strive toward a better jobs/housing ratio. ABAG projections indicate that with Existing Plan policies there will be about a 2,000 unit shortfall in housing units by 1995. The City's economic study indicates that the shortfall could be as much as 6,800 units by 2005. The Proposed Plan would allow about 2000 units more than the Existing Plan thru the year 2005. These additional units together with reductions in the amount of commercial development, would provide a much better jobs/housing balance although a considerable housing shortage would still be expected.

### Comparison of Alternatives

The Measure H Alternative would not meet the housing needs projected by ABAG for the City because this alternative would allow only 2% more housing units than the Existing General Plan. The Reduced Measure H Alternative would have substantial impacts on the city's housing supply and achievement of housing goals, except for senior housing units (exempted by Measure H). Of the 1,840 units that could be built, 1,320 (72%) are in Rossmoor. This would have tremendous impacts on the jobs/housing balance and could substantially increase the number of employees commuting into the City due to lack of adequate supply of housing for Walnut Creek workers.

## 3. Traffic

### Proposed Plan

Figures 5-1 and 5-2 show the average daily traffic for 1986, for the Proposed General Plan at build out and for the Reduced Measure H at build out. Table 5-2 shows the volume to capacity ratios of sixty-two intersections within the Walnut Creek planning boundary for existing (1986), the Proposed General Plan and the Reduced Measure H Alternative (see Ref. 4 for method of calculation).

Figure 5-3 shows the Year 2005 PM peak hour traffic using streets in the Walnut Creek Planning Area with buildout for the Proposed Plan and Figure 5-4 shows the buildout traffic for the Reduced Measure H Alternative. Figures 5-6 and 5-7 show projected 2005 freeway traffic for the two alternatives. The figures show that in the Year 2005 there would be significant traffic added to the street network.

The "average" Ygnacio Valley Road intersection will be operating at the level of the worst intersection on Ygnacio in 1986 (Ygnacio and Civic Drive). If the "average" intersection operates in the future as Ygnacio and Civic did in 1986, it can be expected that queues of vehicles will be spilling over into upstream intersections and blocking cross street traffic for most of the length of Ygnacio



**Table 5-2**  
**Existing and Future Volume to Capacity Ratios**

LANDUSE	1986		REDUCED MEASURE H				PROPOSED GENERAL PLAN			
NETWORK	1986		PLANNED		PLANNED W/ FREEWAY		PLANNED		PLANNED W/CROSSTOWN	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
TREAT/CARRIAGE	0.75	0.60	1.10	0.85	0.90	0.65	1.10	0.85	1.10	0.90
TREAT/BANCROFT	1.20	1.25	1.40	1.95	1.50	1.30	1.55	1.85	1.55	1.95
TREAT/CANDELERO	0.80	0.75	1.05	1.05	0.70	0.75	1.10	1.00	1.05	1.05
TREAT/CHERRY	0.75	1.00	1.10	1.15	0.70	0.80	1.00	1.15	1.00	1.20
TREAT/COGGINS	0.85	0.85	1.20	1.15	0.95	0.80	1.20	1.15	1.15	1.15
TREAT/OAK	0.90	1.00	1.25	1.75	1.10	1.50	1.20	1.75	1.15	1.15
TREAT/BUSKIRK	0.95	1.35	0.80	1.05	0.65	1.15	0.85	1.25	0.80	1.05
GEARY/BUENA VISTA	0.90	1.05	0.90	1.00	0.75	1.05	0.75	1.05	0.70	1.00
GEARY/PLEASANT HILL	0.75	0.95	1.10	1.15	0.95	1.20	1.00	1.25	0.90	1.20
P. HILL/GREEN VALLEY	0.80	0.90	0.90	1.00	0.90	0.95	0.85	1.00	0.90	1.00
N. MAIN/SUNNYVALE	0.95	0.90	1.20	1.30	1.30	1.30	1.45	1.30	1.55	1.35
N. MAIN/TREAT	1.10	1.10	1.55	1.45	1.40	1.15	1.65	1.40	1.60	1.45
N. MAIN/SECOND	0.60	0.45	0.65	0.65	0.60	0.55	0.75	0.65	0.70	0.65
N. MAIN/SAN LUIS	0.55	0.45	0.75	0.90	0.75	0.95	1.00	1.05	0.85	1.00
N. MAIN/I-680 NB OFF	0.60	0.50	0.60	0.65	0.65	0.55	0.75	0.70	0.75	0.70
N. MAIN/PARKSIDE	0.80	1.15	1.10	1.05	0.85	0.85	1.20	1.15	1.65	1.15
N. MAIN/CALIFORNIA	0.32	0.55	0.35	0.70	0.35	0.70	0.45	0.90	0.45	0.90
S. MAIN/NEWELL	0.85	1.00	0.40	0.70	0.30	0.60	0.40	0.75	0.45	0.65
S. MAIN/CREEKSIDE	0.80	0.85	0.40	0.60	0.40	0.50	0.50	0.65	0.50	0.60
N. BROADWAY/CIVIC	0.70	0.95	1.00	1.65	0.85	1.45	1.15	1.80	0.60	1.05
N. BROADWAY/LINCOLN	0.45	0.70	0.85	0.95	0.55	0.80	0.95	1.10	0.40	0.70
S. BROADWAY/NEWELL	0.65	0.75	0.60	0.90	0.60	0.90	0.65	0.95	0.75	1.30
S. BROADWAY/RUDGEAR	---	---	0.90	1.00	0.75	1.00	1.00	1.00	0.95	1.00
RUDGEAR/S. MAIN	---	---	0.55	0.80	0.50	0.75	0.60	0.75	0.55	0.85
YGNACIO/RIVERIA	---	---	0.45	0.65	0.40	0.60	0.50	0.75	0.45	0.75
YGNACIO/OAKLAND	0.95	1.00	0.95	1.15	1.10	1.00	1.00	1.30	0.90	1.20
YGNACIO/CALIFORNIA	0.95	1.10	0.90	0.95	0.65	0.80	1.20	1.10	1.15	1.15
YGNACIO/MAIN	0.75	0.85	0.85	1.00	0.55	0.80	0.85	1.10	0.75	1.10
YGNACIO/BROADWAY	0.80	0.85	0.90	1.50	0.55	0.80	1.25	1.55	0.80	1.05
YGNACIO/CIVIC	1.00	1.25	1.15	1.70	0.95	1.05	1.30	1.55	1.00	1.10
YGNACIO/WALNUT BLVD.	1.10	1.05	1.15	1.25	0.85	0.85	1.30	1.40	1.35	1.30
YGNACIO/HOMESTEAD	0.95	1.05	1.15	1.30	0.70	0.80	1.15	1.35	1.10	1.25
YGNACIO/MARCHBANKS	0.85	1.15	1.00	1.50	0.60	0.95	1.00	1.25	1.00	1.45
YGNACIO/LA CASA VIA	0.85	1.15	1.00	1.85	0.75	1.20	1.00	1.60	1.00	1.60
YGNACIO/JOHN MUIR	0.80	0.95	0.85	1.15	0.50	0.75	0.95	1.15	0.95	1.15
YGNACIO/SAN CARLOS	1.15	1.15	1.25	1.45	0.85	0.90	1.25	1.50	1.30	1.50
YGNACIO/BANCROFT	1.35	1.20	1.85	1.80	1.55	1.85	2.00	1.80	1.95	1.90
YGNACIO/WIMBLEDON	0.75	0.70	0.95	0.95	0.50	0.55	1.05	0.95	1.05	0.95
YGNACIO/LENNON	0.90	0.60	1.10	0.75	0.65	0.50	1.15	0.75	1.15	0.75
YGNACIO/WIGET	0.90	0.90	1.15	1.35	0.70	0.65	1.20	1.30	1.20	1.30
YGNACIO/VIA MONTE	0.70	0.80	0.85	1.05	0.45	0.60	0.90	1.00	0.90	1.00
YGNACIO/OAK GROVE	1.00	1.10	1.15	1.60	0.70	0.85	1.25	1.60	1.25	1.60

Table 5-2 (con't.)  
Existing and Future Volume to Capacity Ratios

LANDUSE	1986		REDUCED MEASURE H				PROPOSED GENERAL PLAN			
NETWORK	1986		PLANNED		PLANNED W/ FREEWAY		PLANNED		PLANNED W/CROSSTOWN	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
MT. DIABLO/BLVD. WY	0.65	0.95	1.05	1.50	1.50	1.40	1.05	1.50	1.05	1.55
MT. DIABLO/OAKLAND	0.65	0.90	0.50	1.15	0.50	0.95	0.55	1.05	0.60	1.15
MT. DIABLO/ALPINE	0.45	0.60	0.75	1.15	0.80	1.00	0.80	1.10	0.80	1.20
MT. DIABLO/BONANZA	0.55	0.65	0.60	0.95	0.55	0.80	0.65	0.90	0.70	0.90
MT. DIABLO/CALIF.	0.65	1.00	0.70	1.25	0.65	1.05	0.85	1.45	0.95	1.20
MT. DIABLO/MAIN	0.55	0.80	0.85	1.10	0.65	1.15	0.75	1.15	0.65	1.70
MT. DIABLO/BROADWAY	0.70	1.00	0.95	1.75	0.70	1.45	1.50	1.95	0.85	1.70
OLYMPIC/I680 SB OFF	--	--	0.80	0.95	0.75	0.95	0.70	0.90	0.70	0.85
OLYMPIC/I680 NB OFF	--	--	0.75	0.70	0.70	0.65	0.85	0.80	0.85	0.90
N. CALIF./CIVIC	0.70	0.95	0.75	0.90	0.60	0.70	0.75	0.95	0.85	0.95
N. CALIF./BONANZA	0.60	0.80	0.70	1.00	0.55	0.85	0.70	1.00	0.70	1.05
S. CALIF./OLYMPIC	0.45	0.90	0.40	0.80	0.45	0.80	0.55	1.00	0.50	0.90
S. CALIF./NEWELL	0.55	0.80	0.30	0.95	0.30	0.90	0.40	1.10	0.35	0.90
BANCROFT/DAVID	0.50	0.45	0.75	0.70	0.65	0.50	0.80	0.70	0.75	0.70
BANCROFT/MINERT	0.45	0.55	0.70	0.90	0.55	0.65	0.85	0.95	0.80	1.00
TICE/ROSSMOOR	0.35	0.60	0.45	0.80	0.45	0.80	0.45	0.80	0.45	0.80
OAK GROVE/MITCHELL	0.90	0.90	0.95	1.05	0.95	1.00	1.00	1.05	1.00	1.05
CIVIC/PARKSIDE	0.85	0.60	1.30	0.75	1.15	0.70	1.20	0.90	1.10	0.85
PARKSIDE/BYPASS RD.	--	--	0.45	0.72	0.45	0.60	0.50	0.75	0.50	0.80
CIVIC / WALDEN	0.65	0.55	0.75	0.75	0.65	0.65	0.80	0.85	0.80	0.85

Table 5-3  
Number of Intersections Over Capacity  
(  $\geq 1.00$  )

<u>Land use</u>	<u>Network</u>	<u>Number of intersections</u>	
		<u>AM</u>	<u>PM</u>
1986	1986	7	20
Reduced Measure H	Preferred	23	30
Reduced Measure H	Preferred w/ freeway	8	18
Proposed General Plan	Preferred	31	41
Proposed General Plan	Preferred w/ crosstown	24	40

Table 5-4  
**Volume to Capacity Ratio for the "Average" Intersection**  
 (Citywide: Average of 62 intersections)  
 (Ygnacio: Average of 18 intersections)  
 (Core Area: Average of 26 intersections)

Network	Landuse	Citywide		Ygnacio		Core Area	
		AM	PM	AM	PM	AM	PM
1986	1986	0.77	0.87	0.93	0.99	0.63	0.82
Proposed	Proposed General Plan	0.95	1.13	1.13	1.28	0.78	1.08
Proposed w/ Crosstown	Proposed General Plan	0.91	1.10	1.07	1.23	0.73	1.04
Proposed	Reduced Measure H	0.88	1.10	1.04	1.28	0.70	1.01
Proposed w/ Freeway	Reduced Measure H	0.73	0.89	0.72	0.86	0.65	0.90

Table 5-5  
Volume to Capacity Ratios  
With Mitigation Projects Under  
Proposed General Plan Buildout

Project*	Selected Intersections	Volume to Capacity Ratio			
		w/o Projects		w/ Projects	
		AM	PM	AM	PM
1	N. Main/Parkside	1.25	1.40	1.20	1.15
2,3	Ygnacio/California	1.30	1.40	1.20	1.10
3	California/Civic	0.85	1.00	0.75	0.95
3,5	California/Olympic	0.65	1.15	0.55	1.00
5	Olympic/I680 NB Off	0.90	0.95	0.85	0.80
6	Geary/Buena Vista	1.00	1.35	0.75	1.05
6	Geary/Pleasant Hill	1.05	1.35	1.00	1.25
4	Mt. Diablo/Oakland	0.80	1.40	0.55	1.05
4	Mt. Diablo/Alpine	1.05	1.45	0.80	1.10
4	Mt. Diablo/Bonanza	0.80	0.95	0.65	0.90
3,4	Mt. Diablo/California	0.95	1.50	0.85	1.45

\* Project Descriptions (see background documentation for details)

1. North Main Parkside Bypass
2. Riveria Avenue Extension
3. 6 Lanes on California Boulevard
4. 6 Lanes on Mt. Diablo Boulevard
5. 6 Lanes on Olympic Boulevard
6. 4 Lanes on Geary Road





Valley Road. The peak period could lengthen from today's two hours in the PM peak to possibly three hours.

However, there are two components to this increase in traffic. **Figure 5-5** shows the regional portion of the total traffic increases shown in **Figures 5-3** and **5-4**. The regional traffic is traffic which is not coming from, going to, nor internal to Walnut Creek.

In the eastbound direction, Ygnacio Valley Road just west of Bancroft Road, is projected to carry 45 percent regional traffic and 55 percent Walnut Creek related traffic. On eastbound Treat Boulevard west of Bancroft 41 percent of the traffic will be regional. Since the traffic increases shown in the tables are due to the combination of local and regional development, traffic congestion will increase on City streets even if there is no further development in the City.

Given the regional component of the projected traffic increases (which the City has no control over), the key to assessing the various alternatives is to compare the difference in the traffic impacts resulting from each alternative. **Table 5-3** shows the number of intersections which exceed capacity for each scenario. **Table 5-4** shows the volume to capacity ratio for the "average" intersection in the city, the Core Area, and along Ygnacio Valley Road for each alternative. The "average" intersection is a hypothetical concept provided for easy comparison of the overall effects of the different land use and transportation scenarios.

As shown in **Table 5-4** the volume to capacity ratio for the "average" citywide intersection, during the PM peak hour, increases from 0.87 in 1986 to 1.13 at build out of the Proposed General Plan. The "average" Ygnacio Valley Road intersection increases from 0.99 to 1.28 and the "average" Core Area intersection increases from 0.82 to 1.08.

Under the Reduced Measure H Alternative the "average" citywide intersection increases from 0.87 to 1.10, the Ygnacio intersection from 0.99 to 1.28, and the Core Area intersection from 0.82 to 1.01. For both alternatives the changes assume that the proposed roadway projects described below are constructed.

The volume to capacity ratio for the "average" Ygnacio Valley Road intersection is nearly the same under the Proposed General Plan and the Reduced Measure H Alternative. The majority of the land use differences are in the Core Area. They have less of an influence on Ygnacio congestion because regional traffic is a significant portion of the Ygnacio Valley Road traffic.

#### Mitigations Included in the Proposed Plan

Planned Roadway Improvements - The future roadway network analyzed by the traffic model consists of street improvement projects in Walnut Creek as well as throughout Contra Costa County. Projects



FIGURE 5-1

## EXISTING AND FUTURE TRAFFIC

EXISTING  
REDUCED  
GENERAL  
PLAN









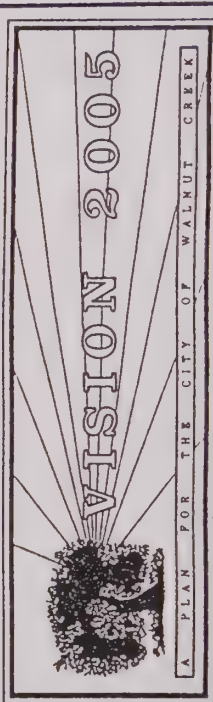
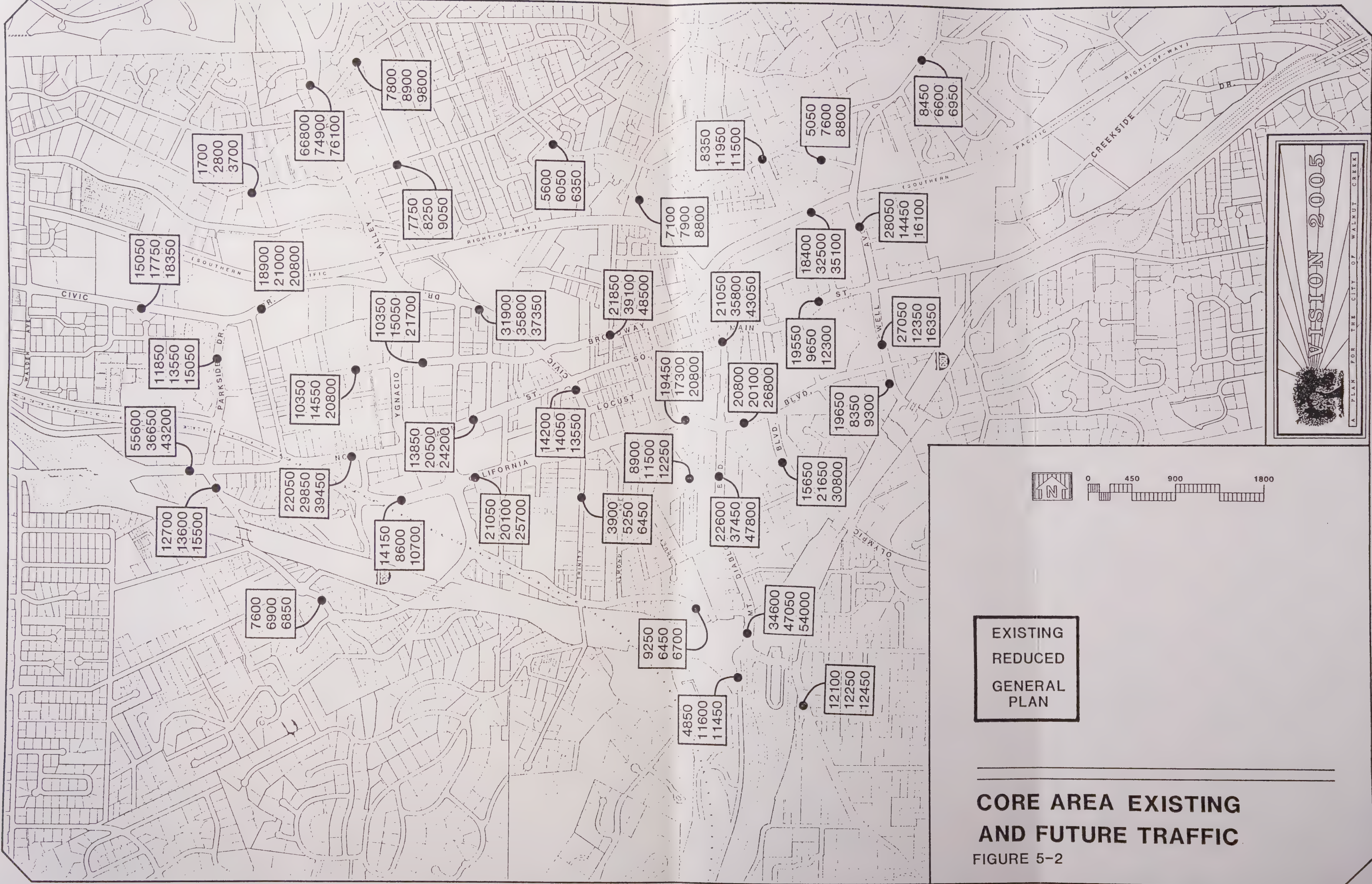


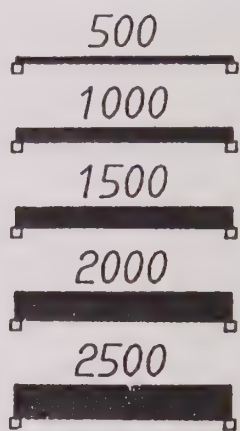




FIGURE 5-3

# AUTO VOLUMES

VEHICLES/PEAK HOUR



YEAR 2005 PM PEAK HOUR TRAFFIC VOLUMES-PROPOSED PLAN

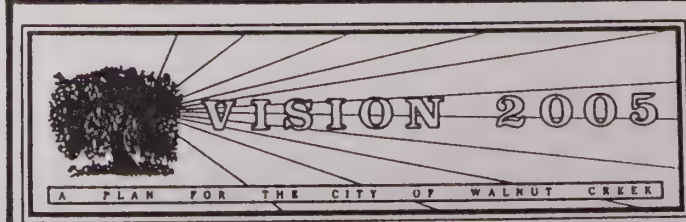


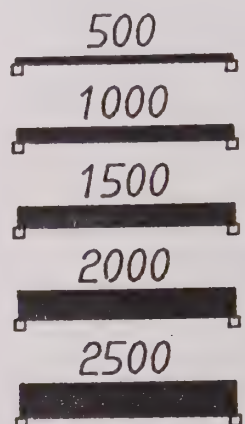




FIGURE 5-4

**AUTO VOLUMES**

VEHICLES/PEAK HOUR



YEAR 2005 PM PEAK HOUR TRAFFIC VOLUMES - REDUCED H ALTERNATIVE

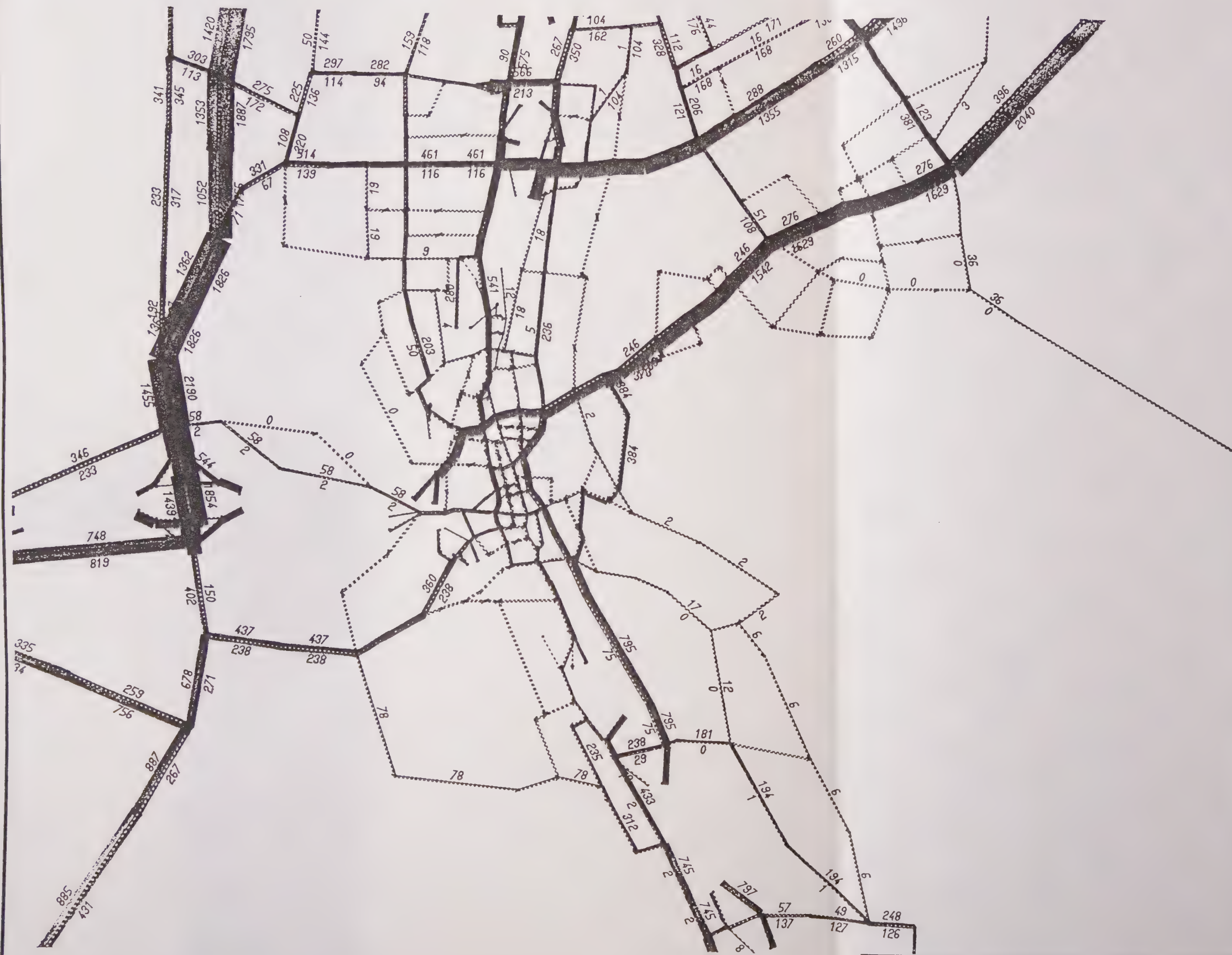
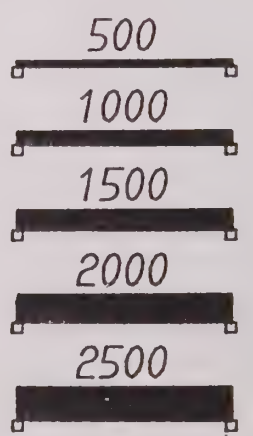






# AUTO VOLUMES

VEHICLES/PEAK HOUR



YEAR 2005 PM PEAK HOUR TRAFFIC VOLUMES  
- REGIONAL THROUGH TRAFFIC



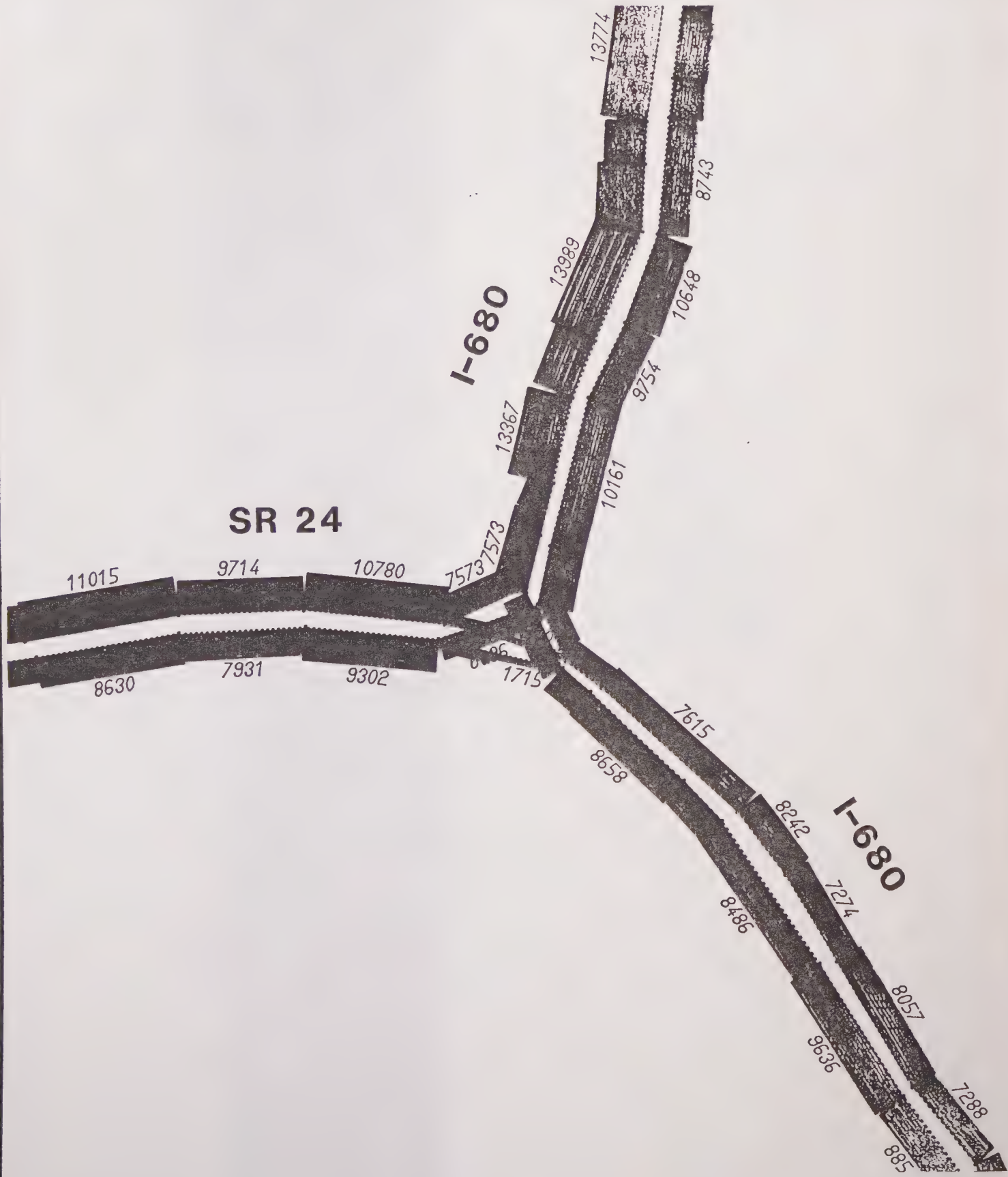
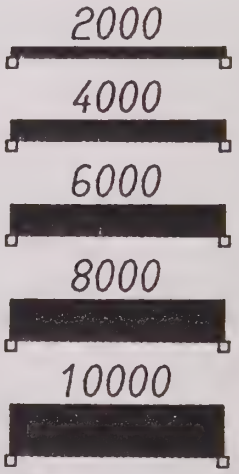




FIGURE 5-6

**FREEWAY VOLUMES**

VEHICLES/PEAK HOUR



YEAR 2005 AM PEAK HOUR TRAFFIC VOLUMES

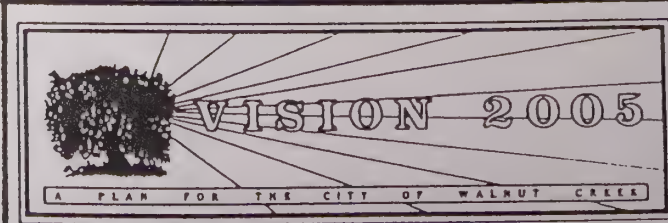


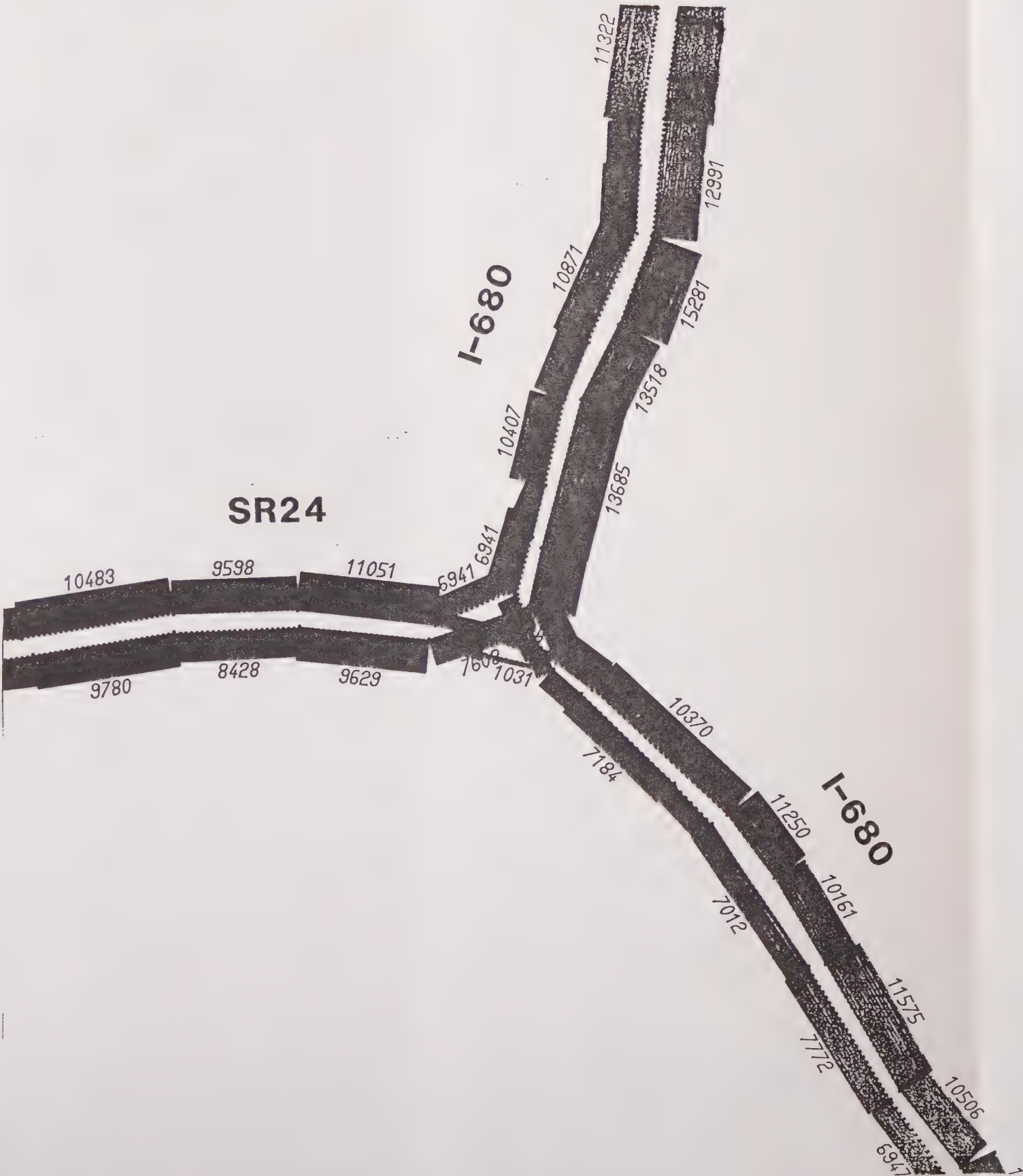




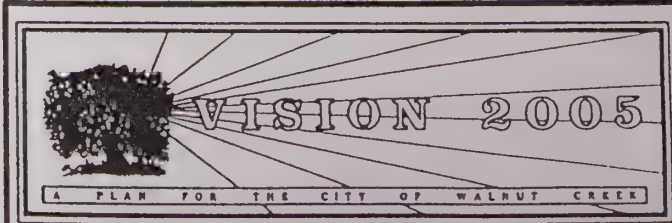
FIGURE 5-7

**FREEWAY VOLUMES**

VEHICLES/PEAK HOUR



YEAR 2005 PM PEAK HOUR TRAFFIC VOLUMES





outside of Walnut Creek, such as the widening of Highway 4 and an expressway along Vasco Road have an effect on traffic congestion in Walnut Creek. Regional traffic from east Contra Costa County uses Highway 4 and Ygnacio Valley Road to get to Highway 680 and State Route 24.

The improvement of one route will attract trips from the other routes. However, growth in East Contra Costa County is expected to be so large that widening of Highway 4 and construction of an expressway along Vasco Road would not divert enough traffic from Ygnacio Valley Road to significantly reduce congestion levels.

Future roadway projects in Walnut Creek that were tested in the model and were included in the proposed and alternative plans are:

1. North Main / Parkside Bypass
2. Riviera Avenue Extension
3. Widen California Boulevard to 6 lanes
4. Widen Mount Diablo Boulevard to 6 lanes
5. Widen Olympic Boulevard to 6 lanes
6. Widen Geary Road to 4 lanes

Except for the Geary Road widening project, these projects lower congestion levels in the Core Area only. Levels on Ygnacio Valley Road are not noticeably improved. Table 5-5 shows the before and after volume to capacity ratios under the Proposed General Plan land uses for the intersections which are affected by the roadway projects. While congestion levels improve at these intersections, most of the intersections will still be operating over capacity.

Increased congestion along regional arterials will encourage traffic to divert through residential neighborhoods. The Proposed Plan includes a policy of protecting the neighborhoods from diverted traffic by the use of street barriers, turn restrictions, street closures, and other traffic control devices if feasible.

TSM and Other Measures - The City will continue to implement its TSM ordinance to reduce traffic. The program encourages carpools, vanpools and increased transit ridership. Transit improvements in the area will include both improvements to the bus service and BART. The east county BART extension will provide a means of transport for workers coming to both Walnut Creek and employment centers to the west, and the improved frequency, added parking, and extensions in the system to San Mateo and Southern Alameda Counties will make BART more attractive for Walnut Creek residents.

Local transit, primarily the Contra Costa County Transit Authority, will improve the availability and flexibility of transit within the central County area. The City is considering funding a Transit shuttle bus on Ygnacio Valley Road. Transit ridership is projected to increase within the City. The use of bicycles as an alternative is more difficult to project, however, studies from other California communities indicate that through the provision of a comprehensive facilities network such as is planned for the City, a doubling of bicycle work trips can be achieved.



Growth Management Plan - The Proposed General Plan includes a growth management program. This program establishes a minimum level of service "C" for all residential streets, "D" for the collector streets and some arterials. Ygnacio Valley Road and Treat Boulevard / Geary Road cannot meet a level of service "E". Except for some residential streets, the Core Area roadways cannot meet a level of service "E". The growth management program will prohibit major commercial and residential development in the Core Area until the proposed roadway projects (1 through 5 above) are funded. Thereafter commercial development will be metered over the life of the General Plan.

#### Mitigations Not Included in the Plan

Two major roadway projects were evaluated for inclusion in the Plan. They were both rejected as mitigation measures because of the disruptive effects they would have on the City. They are the East-West Freeway and the Crosstown Connection. The East-West Freeway was proposed as a four lane facility connecting the I680/24 interchange to Ygnacio Valley Road east of Oak Grove Road.

Table 5-3 shows that with the Reduced Measure H land uses, the freeway would remove enough future traffic from the local roadway system to reduce congestion to levels similar to today. Eight intersections in the morning and 18 intersections in the evening would still be over capacity. Table 5-4 shows that the "average" Ygnacio Valley Road intersection would have a volume to capacity ratio of 0.86 during the PM peak hour.

Although not specifically modeled, the addition of the freeway with the Proposed General Plan land uses would achieve a similar reduction. The "average" Ygnacio Valley Road intersection's volume to capacity ratio would change from 1.28 to approximately 0.86.

The second project was the Crosstown Connection. This would be a two lane expressway connecting Ygnacio Valley Road to Newell Avenue along the Southern Pacific right-of-way. Its purpose was to reduce congestion in the Core Area by removing a portion of the through traffic. Table 5-4 shows that the "average" Core Area intersection's volume to capacity ratio was reduced by 0.04 under the Proposed General Plan. The Crosstown project was not modeled with the Reduced Measure H land use, however, the effect would be similar reduction of approximately 0.04.

These two projects were not included in the plan because of their disruptive impacts on the Community. Both projects would have negative impacts including increased noise and air pollution along their length. The East-West freeway would divide the Community physically and provide a psychological barrier between neighborhoods. It would require the acquisition of numerous homes and businesses. The loss of housing is considered a significant impact.

### Comparison of Alternatives

The primary advantage of the Reduced Measure H Alternative is fewer intersections over capacity. However, 23 intersections in the a.m. peak and 30 in the p.m. peak would still be over capacity and the "average" intersections for each alternative would be similar (refer to **Tables 5-3 and 5-4** in Chapter 5). The Reduced Measure H Alternative is discussed in depth in the above discussion.

The Measure H Alternative was not tested on the roadway network listed above for the EIR analysis but was previously examined under an improved network (the \$26 million in City package without the Highway 4/Vasco Rd. widening.) Under this scenario a substantial number of intersections exceeded the .85 Measure H standard (29 in the a.m. peak and 47 in the p.m. peak). Further testing with the addition of an east/west corridor freeway yielded nine intersections still over .85 in the a.m. peak and 23 in the p.m. peak. These results suggest that even with major roadway improvements the .85 Measure H standard cannot be achieved.

The Existing Plan Alternative is expected to have by far the greatest traffic impacts because of the large amount of commercial development that would be permitted.

### **REFERENCES**

1. California Department of Transportation, CALINE-4-A Dispersion Model for Predicting Air Pollutant Concentrations near Roadways, Report No. FHWA/CA/TL-84/15, 1984.
2. Bay Area Air Quality Management District, Air Quality and Urban Development, November 1985.
3. Randall, P. C. and H. Ng; Air Quality Analysis Tools (AQAT-2), California Air Resources Board, 1987.
4. The future projections of traffic volumes are based on the cumulative effect of growth throughout the nine Bay Area counties. The land use inputs to the Transportation Model were the ABAG '87 projects for the Bay Area except Contra Costa County, the Contra Costa County estimates used in their current General Plan work, and the proposed General Plan in Walnut Creek. The Contra Costa County land use data is a projection of what is expected to be built and not a build out of their General Plan. The volume to capacity ratio was calculated using the Transportation Research Board Circular 212 Planning method.

#### 4. Noise

##### Proposed Plan

The Community Noise section in the General Plan contains detailed information on projected noise levels for noise sources in Walnut Creek. The analysis indicates that noise levels along selected streets (ADT 6,000 or greater) and highways will increase under the Proposed General Plan (PGP), but in most cases it will not increase the present noise level by more than 3dB. The one exception to this occurs on certain sections of Mt. Diablo Boulevard where the current noise level would be exceeded by 4dB. Although the increase in noise levels generated by the PGP is not substantial, it may require specific mitigation measures on individual sites on heavily travelled streets.

A noise exposure map is included in the noise element showing projected noise levels along the major streets and highways in the City of Walnut Creek. The Proposed Plan requires noise studies in areas where the noise criteria are exceeded.

Studies by the City's noise consultant have indicated that even with increased train traffic that would result with the extension of BART to the East County, noise levels from BART are not expected to change significantly in the future. Noise levels at the John Muir Emergency Heliport are also not expected to increase significantly and no significant new stationary sources are anticipated in the City.

##### Comparison of Alternatives

It is not expected that noise impacts of any of the alternatives would differ significantly from the proposed plan.

#### 5. Air Quality

##### Proposed Plan

Development allowed by the General Plan would impact both local and regional air quality. The primary effect of development would be indirect, that is, due to automobile traffic generated by new land uses. This automobile traffic would affect local carbon monoxide concentrations near roads and intersections, and would also affect the regional air quality of the Diablo Valley.

##### a. Local Impacts

On the local scale carbon monoxide has been considered the most important pollutant. The CALINE-4 computer model was applied to 9 intersections within Walnut Creek for existing traffic conditions and for 2005 traffic conditions for two General Plan alternatives. These intersections were selected as having the highest traffic volumes and/or congestions levels within Walnut Creek. (See Table 5-2 in previous Transportation section).



Concentrations were estimated at 10 meters and 25 meters from the curbline of each intersection. The calculations reflected worst case conditions for both traffic and meteorology. The CALINE-4 model and conditions assumed for its use are described in Appendix B.

The state and federal standards for carbon monoxide levels specify averaging times of 1 and 8 hours. The applicable state and federal standards are 20 and 35 PPM (Parts Per Million), respectively. Predicted existing and future carbon monoxide concentrations near the 9 selected intersections for the peak 1-hour period are shown in Table 5-6. No violations of the federal ambient air quality standard are indicated for the one hour standard.

However, violations of the more stringent state ambient standard of 20 PPM for one hour averaging are indicated at 4 of the 9 intersections analyzed under existing traffic conditions. These violations occur only very close to the intersection. The standards are violated at 10 meters from the curb but not at 25 meters from the curb (carbon monoxide concentrations drop off rapidly with distance from the road).

These violations occur only under existing, not future conditions (i.e. buildout of the General Plan). Future carbon monoxide concentrations are affected by opposing trends. The number of vehicles entering the intersection in question will, in part, determine carbon monoxide emissions, as does the level of congestion. Both of these will be increasing in the future. At the same time, the per-mile emission rate from automobiles in the future will be lower, as newer vehicles, with more effective emission control systems, replace older vehicles. Also, improvements to the Inspection and Maintenance program are expected to further reduce per-mile emission rates. (Ref. 1)

The effect of emission controls is evidently greater, as future carbon monoxide concentrations are predicted to be below current concentrations despite increased traffic and congestion. By the Year 2005, no violations of the state 1-hour standard are indicated at any of the intersections analyzed.

Predicted existing and future carbon monoxide concentrations near the nine selected intersections for the 8-hour averaging period are shown in Table 5-7. The applicable state and federal standards are both 9.0 PPM. For existing conditions, violations of the state and federal standard are indicated for 8 of the 9 intersections at 10 meters from the curb.

At 25 meters from the curb concentrations would drop off below the standard at all nine (9) locations. Again, under future conditions, the standards would not be exceeded.

There are several "sensitive receptors" located near the 9 intersections analyzed for carbon monoxide. Sensitive receptors



are land uses which would be expected to attract or be inhabited by the most sensitive population groups-- children, the elderly, the acutely ill and the chronically ill. The sensitive receptors include a retirement home one-half block from the Geary/Main intersection, the Kaiser hospital adjacent to the Newell/Main intersection and residential areas adjacent the Geary/Buena Vista, Treat/Bancroft and Ygnacio Valley/Oak Grove intersections.

Local violations of the ambient air quality standards are indicated under current conditions at all of these intersections except Geary/Buena Vista. The sensitive land uses in question are all beyond the area violating the standards. Future concentrations at these sensitive receptors will be lower than current concentrations for both General Plan alternatives, with no violations of any standards expected.

#### Comparison of Alternatives

The predicted concentrations in **Tables 5-6** and **5-7** in the Year 2005 are very similar for the Proposed General Plan and the Reduced Measure H Alternative. The maximum differences between the two alternatives is 0.5 PPM for the 1-hour averaging time and 0.2 PPM for the 8-hour averaging time. It is expected that the Measure H Alternative would have about the same impacts, and that the Existing Plan would have significantly greater impacts.

#### b. Regional Impacts

Development within Walnut Creek would have an effect on air quality outside Walnut Creek itself. Trips to and from Walnut Creek would result in air pollutant emissions over the entire Bay Area transportation network. To evaluate and compare the emissions associated with each alternative, the URBEMIS-2 computer program, developed by the California Air Resources Board, was applied to incremental development under both alternatives.

The daily increase in regional emissions for hydrocarbons and oxides of nitrogen, two precursors of ozone, is shown in **Table 5-8**. Countywide daily emissions from automobiles are also shown. The URBEMIS-2 program and the assumed conditions for its use are described in **Appendix B**.

Guidelines for the evaluation of project impacts issued by the Bay Area Air Quality Management District consider emission increases of ozone precursors to be significant if they exceed 150 pounds per day. (Ref. 3) Based upon this criterion, it is expected that all of the alternatives would cause significant increases in regional emissions.

District guidelines suggest a second threshold of significance for regional emissions equal to 1% of the county-side emissions from vehicles. Based on this criterion only the Existing Plan and the Proposed Plan would generate new emissions exceeding this second threshold of significance, the Measure H and Reduced Measure H Alternatives would not.

The growth in emissions associated with any of the Plans would contribute to the continuing ozone problem in the Diablo Valley. Emissions of ozone precursors must be reduced below current levels if the ozone standard is to be attained. The emissions generated by development accommodated by either alternative would have to be somehow offset by stricter controls on mobile and stationary sources in the future. These controls could include programs such as TSM, increased transit service, expansion of bikeways, provision of housing close to work centers, etc.

Table 5-6

Predicted Year 1988 and 2005 Carbon Monoxide Concentrations  
for the Peak 1-Hour Period, in Parts Per Million

<u>Intersection</u>	Existing (1988)		Proposed Plan (2005)		Reduced Measure H (2005)	
	10 m	25 m	10 m	25 m	10 m	25 m
Ygnacio Valley/ Bancroft	<u>20.4</u>	17.4	16.8	14.6	16.9	14.7
Ygnacio Valley/ Oak Grove	19.8	16.9	16.5	14.3	16.6	14.4
Treat/ Bancroft	<u>20.4</u>	17.7	17.7	15.4	17.7	15.4
Geary/ Buena Vista	16.6	14.1	15.0	13.4	14.5	13.1
Geary/ Main	19.1	16.9	16.8	14.9	16.8	14.8
Ygnacio Valley/ Civic	<u>21.2</u>	17.3	16.9	15.0	17.1	15.0
California/ Mt. Diablo	18.9	16.7	16.2	14.5	16.3	14.5
Main/ Newell	18.7	16.7	14.4	13.3	13.9	12.9
Broadway/ Newell	<u>20.4</u>	17.6	15.4	13.7	14.8	13.4

Concentrations exceeding the state standard of 20 PPM are underlined.

Table 5-7

Predicted Year 1988 and 2005 Carbon Monoxide Concentrations  
for the Peak 8-hour Period, in Parts Per Million

<u>Intersection</u>	Existing (1988)		Proposed Plan (2005)		Reduced Measure H (2005)	
	10 m	25 m	10 m	25 m	10 m	25 m
Ygnacio Valley/ Bancroft	<u>10.2</u>	8.7	8.4	7.3	8.5	7.4
Ygnacio Valley/ Oak Grove	<u>9.9</u>	8.5	8.3	7.2	8.3	7.2
Treat/ Bancroft	<u>10.2</u>	8.9	8.9	7.7	8.9	7.7
Geary/ Buena Vista	8.3	7.1	7.5	6.7	7.3	6.6
Geary/ Main	<u>9.6</u>	8.5	8.4	7.5	8.4	7.5
Ygnacio Valley/ Civic	<u>10.6</u>	8.7	8.5	7.5	8.6	7.5
California/ Mt. Diablo	<u>9.5</u>	8.4	8.1	7.3	8.2	7.3
Main/ Newell	<u>9.4</u>	8.4	7.2	6.7	7.0	6.5
Broadway/ Newell	<u>10.2</u>	8.8	7.7	6.9	7.4	6.7

Concentrations exceeding the state and federal standard of 9 PPM are underlined.



Table 5-8

Project and County-Wide Regional Emissions, in Pounds per Day

	Hydrocarbons	Oxides of Nitrogen
Proposed Plan	1835	3280
Reduced Measure H	427	720
County-Wide (Ref. 2)	93,200	72,800

References:

1. California I/M Review Committee, Evaluation of the California Smog Check Program, April 1987.
2. Bay Area Air Quality Management District, Base Year 1983 Emissions Inventory Summary Report, 1987.
3. Bay Area Air Quality Management District, Air Quality and Urban Development, November 1985.

## 5. Fiscal Impacts

### Proposed Plan

A fiscal impact analysis was prepared by Economic and Planning Systems in conjunction with the EIR analysis for the Proposed General Plan. (See separate report, available from City Planning Department). The purpose of the study was to estimate the cost and revenue implications of two alternative development scenarios - the Proposed General Plan (PGP) and the Reduced Measure H Alternative. The analysis focused on ongoing costs and revenues; major capital expenditures were not addressed.

The study found that both alternatives would have positive fiscal impacts for Year 2005. The surplus generated by the Proposed General Plan would be about 6 times larger than that produced by the Reduced H Alternative. The PGP was projected to generate about \$3 million annually in surplus while the Reduced H Alternative would yield a \$500,000 annual surplus. Costs represented 60% of total revenues for the Reduce H Alternative while under the Proposed General Plan they represented 47% of total revenues.

### Comparison of Alternatives

The Existing General Plan would be expected to generate an even larger surplus, the Measure H Alternative around the same as the Proposed Plan.

## CHAPTER 6: CEQA REQUIRED FINDINGS

### A. Effects Found Not to be Significant

The proposed General Plan (PGP) was found to have an insignificant or no impact on the following:

1. Rare and endangered species
2. Noise increases
3. Increased demand for fire protection, sewerage, storm drainage
4. Use of energy resources
5. Historic resources

Some of these were determined by the Initial Study; others were the result of investigations during the EIR process. A copy of the Initial Study is included in the **Appendices**.

### B. Potentially Significant Impacts Mitigated to Insignificant Levels by the Proposed General Plan

The degree to which these impacts become significant depends on the proper implementation of the General Plan policies. Assuming the policies are implemented to the degree intended, the following issues would be adequately mitigated (these impacts are fully discussed in Chapter 5 of this report):

1. Slope instability, erosion potential and view degradation in hillside areas.
2. Loss of wildlife habitat and creek degradation.
3. Adequacy of park and recreation facilities.
4. Adequacy of water supply, schools, police protection.
5. Changes to the city's visual appearance due to additional development.
8. Exposure to floods
9. Cumulative increases to regional air pollution levels of Carbon Monoxide

### C. Significant Unavoidable Adverse Impacts Resulting from the Proposed General Plan

1. Continued traffic congestion on city roadways and at key city intersections.

The City has proposed an extensive list of roadway projects to improve congestion on local streets. Some relief will be experienced but high congestion levels will continue due to the status of current conditions and the fact that the city's local roads carry a substantial amount of regional through trips. Unless communities outside Walnut Creek engage in similar programs to reduce the production of auto trips and the usage of the single occupant auto, congestion on Walnut Creek streets will continue to increase even if the City were to suspend all development during the life of this plan (also see item 4 air pollution impacts).

2. Exposure to and resulting structural damage from a maximum credible earthquake of 7.0 on the Richter scale along the Calaveras Fault.

Exposure to a seismic event cannot be controlled by human forces. Plan policies are geared toward reducing loss of life and property damage in the event of a major quake.

3. Contribution to the need for additional solid waste disposal facilities.

Provision of solid waste disposal facilities is under the County's purview. Resolution of finding an acceptable site should occur by the time this Plan is adopted. The City initiated a curbside recycling pilot program in October 1988. If successful the City will extend the program citywide. Such efforts demonstrate the City's commitment to reducing their impact on the generation of solid waste.

4. Standards for contribution to regional air pollution levels of hydrocarbons and oxides of nitrogen are exceeded.

The Plan attempts to reduce traffic, the main contributor to this type of air pollution, in a number of ways. It stresses the expansion of non-auto transit modes such as buses and bikeways, provides more housing in the Core Area near BART, job centers and shopping, substantially reduces the amount of commercial square footage, emphasizes pedestrian routes throughout the central Core Area, and commits the City to continued participation in subregional groups, such as Transpac and the Transportation Partnership, which are working toward areawide solutions to traffic congestion.

5. The Proposed Plan will not provide an adequate supply of affordable housing.

The Proposed Plan provides a substantial increase in housing over the previous plan. Because there is a limited supply of undeveloped land in the City it would be extremely difficult to meet the fair share housing requirements.

#### **D. Growth-Inducing and Cumulative Impacts from the Proposed Plan**

1. An action or plan is generally considered growth inducing if it meets any of the following criteria; extends urban services into a previously unserved area, extends a major roadway into a previously unserved area, establishes new, major employment opportunities, or promote population growth. The Proposed General Plan is not considered growth-inducing because it does not expand any major roadways to new areas, extend any services, create major employment centers which would promote population growth.



2. The Proposed Plan would have the cumulative impact of contributing to regional traffic flows in the greater Bay Area.

E. Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Under this section, CEQA requires the consideration of impacts which narrow the range of beneficial uses of the environment or pose long-term risks to health or safety. Most of the development allowed by the Plan would occur in areas already built; thus the impact on natural areas is limited. There are two exceptions: the Newhall property and Rancho Pariso. Density for both areas is recommended at the lowest end of the range (.1-1 du/ac). This will allow for maximum protection of scenic and wildlife values. (It should be noted that Rancho Pariso is being developed in the County; the City's Plan recognizes this current development activity.)

In evaluating the impacts of the alternatives it is important to consider the City's priorities. If the City's exclusive priority is improvement of traffic congestion, then the alternative with the least amount of traffic impact would be the most appropriate. But if the citizens of the community believe that there are additional priorities such as provision of additional housing, enhancement of the downtown area, encouragement of new retail and renovation of existing retail uses, the improvement of traffic congestion needs to be balanced with these other goals.

The greatest long-term risk associated with the Plan, other than earthquake damage, is development that may occur on unstable slopes. There are numerous policies in the Public Safety and Community Development elements which reduce the risks associated with this type of development.

F. Irreversible Environmental Changes and Irretrievable Commitment of Resources

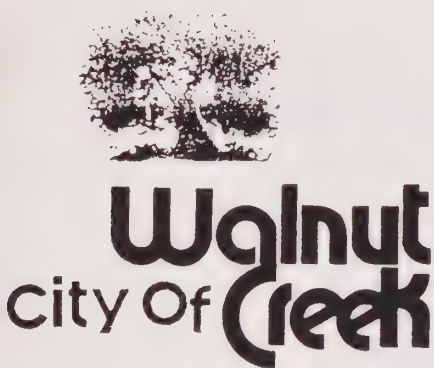
These impacts will not occur until development actually takes place. They are unavoidable if any development occurs. They only become significant when considering full buildout of the Plan. If and when that occurs the following impacts would result:

- irretrievable commitment of energy resources to construct and maintain new development
- irretrievable commitment of water to supply the domestic needs of new residences
- irreversible change in the scenic character of previously undeveloped areas on the Newhall and Rancho Pariso properties
- irreversible loss of some wildlife habitat on the Newhall and Rancho Pariso properties

There are Plan policies which address each of these impacts (see Chapter 5 for listing).

## APPENDIX A: INITIAL STUDY





NOTICE OF PREPARATION  
ENVIRONMENTAL IMPACT REPORT  
CITY OF WALNUT CREEK

DATE: JUNE 16, 1988

WORK ORDER NO.: \_\_\_\_\_

PROJECT TITLE: WALNUT CREEK GENERAL PLAN UPDATE

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

The City of Walnut Creek will be the lead agency and will prepare an environmental impact report for the comprehensive update to the City of Walnut Creek General Plan as described below under "Project Description".

To Responsible Agencies:

We need to know your views as to the scope and content of the environmental information which is germane to your agency's statutory responsibility in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

A copy of the Initial Study is attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than August 1, 1988.

Send your response to BRENDA GILLARDE at the Walnut Creek Community Development Department, 1666 North Main Street, P.O. Box 8039, Walnut Creek, CA 94596.

Include in your response the name of a contact person in your agency.

To Citizens:

The EIR will disclose the significant environmental effects of the project and suggest mitigation measures and project alternatives to reduce those impacts to an acceptable level.

I. Project Location:

The City of Walnut Creek is located in the central portion of Contra Costa County, at the crossroads of Interstate 680 and Highway 24 approximately 40 minutes east of San Francisco.





Notice of Preparation of a Draft EIR  
Project Title: Walnut Creek General Plan Update

The community profile is as follows:

Planning Area: 19,705 acres or 30.8 square miles  
Incorporated City: 11,228 acres or 17.5 square miles  
Population: 62,087 (incorporated city only)  
Dwelling Units: (incorporated city only)  
    Single Family: 12,636  
    Multi-Unit: 16,313  
Build out of vacant land: (under the current General Plan;  
    incorporated city only)  
    Residential: 2,144 units  
    Commercial: 1,310,929 square feet

II. Project Description:

The project consists of a comprehensive update of the 1971 Walnut Creek General Plan and subsequent amendments to the 1971 document. The General Plan will consist of the seven elements mandated by the State of California including Land Use, Housing, Noise, Safety, Transportation, Open Space and Conservation. The General Plan will examine existing and future conditions as well as goals and policies to guide development and resources for a 15 to 20-year time horizon.

III. Environmental Issues:

The probable environmental effects of the project and issues the EIR will focus on are as follows:

A. Future Growth

The City is approximately 94% built out, however there is considerable potential throughout the city, particularly the Core Area, for reuse and intensification of existing built parcels. The estimate of future citywide build out will contain an analysis for the reuse and intensification of selected parcels in the Core Area based on an economic study.

Most residential neighborhoods in the city areas are built out and stable. The critical issue in these areas is access, along key routes that serve not only local but regional traffic.

B. Traffic

The primary impact of any new development in the city is traffic. Existing and future traffic impacts are being addressed through a very sophisticated computer model. The model is able to analyze traffic impacts at the intersection level. Mitigations will focus on local as well as regional

infrastructure improvements. Roadway improvements will be defined in the General Plan.

C. Noise and Air Quality

Noise and air quality impacts are being addressed by noise and air quality consultants who will evaluate current conditions as well as the impact of the proposed plan.

D. Infrastructure Constraints

The impact of growth on sewer, water, police, fire, schools and parks will be evaluated. The City is also considering a growth management system that would require project compliance with certain infrastructure performance standards.

E. City Amenities

The plan will contain several subelements to address civic arts, child care, parks and recreation and, open space. Policies and programs directed toward provision and maintenance of these amenities will be contained in the subelements.

F. Natural Resources

Much of the city's natural areas are preserved as permanent open space. Impacts on native wildlife and vegetation are therefore expected to be minimal; however, there may be some potential for impact in hillside areas. The effect of natural hazards associated with earthquakes and flooding on new development is also expected to be minimal.

G. Regional Impacts

Consideration of regional impacts of future growth in Walnut Creek will focus on two areas - traffic and air quality. The plan will contain policies promoting the continuance of regional cooperation in the areas of traffic mitigation, establishment of TSM programs and transit systems.

H. Alternatives

The EIR will consider several alternatives to the preferred land use plan. These options will include: (1) no growth; (2) very restricted growth; (3) growth under the existing General Plan.

Notice of Preparation of a Draft EIR

Project Title: Walnut Creek General Plan Update

Anyone who wishes to respond to the issues to be focused upon must do so in writing no later than forty-five (45) days after the date of this notice.

For further information contact Brenda Gillarde or Kelly Collins at City Hall, 1666 North Main Street, Walnut Creek, (415) 943-5834.

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KEVIN ROBERTS, DIRECTOR  
Community Development Department



CITY OF WALNUT CREEK  
COMMUNITY DEVELOPMENT DEPARTMENT  
INITIAL STUDY

PROJECT TITLE: Walnut Creek General Plan      WORK ORDER NO. \_\_\_\_\_  
PREPARED BY:    Brenda Gillarde                      DATE: \_\_\_\_\_  
REVIEWED BY:    \_\_\_\_\_                      DATE: \_\_\_\_\_

I.    PROJECT INFORMATION:

A.    PROJECT DESCRIPTION

A comprehensive update of the 1971 General Plan, and subsequent revisions. The update will include a review and evaluation of all the state mandated elements, as well as the City's optional elements (Parks and Recreation, Trails and Urban Design).

B.    PROJECT LOCATION

The City's planning area encompasses approximately 30.8 square miles (see attached map). The boundary generally follows the City's current sphere of influence line, except for the east side, where the line encompasses private grazing lands.

C.    CHARACTERISTICS OF THE PROJECT SITE

Most of the planning area consists of the City of Walnut Creek, which is about 94% built out. About 3,000 acres of the planning area is public open space; this area is within Walnut Creek City limits.

D.    CHARACTER OF THE SURROUNDING AREA

The City is surrounded on three sides by either county land or adjacent cities - Concord and Pleasant Hill to the north and Lafayette to the west. To the east are grazing lands and Mt. Diablo State Park.

E.    GENERAL PLAN DESIGNATION AND ZONING

Currently there are 9 residential and 11 commercial land use categories. As part of the update, these categories will be consolidated to eliminate overlap and redundancy.

Initial Study (continued)

II. AGENCIES CONSULTED:

	YES	NO
Regional Water Quality Control Board	<u>X</u>	<u>          </u>
State Department of Public Health	<u>          </u>	<u>X</u>
Bay Area Air Quality Maintenance District	<u>X</u>	<u>          </u>
Metropolitan Transportation Commission	<u>X</u>	<u>          </u>
U. S. Environmental Protection Agency	<u>          </u>	<u>X</u>
State Department of Fish & Game	<u>X</u>	<u>          </u>
Contra Costa County Flood Control District	<u>X</u>	<u>          </u>
Central Contra Costa Sanitary District	<u>X</u>	<u>          </u>
Contra Costa County Water District	<u>X</u>	<u>          </u>
Contra Costa County Consolidated Fire District	<u>X</u>	<u>          </u>
East Bay Municipal Utility District	<u>X</u>	<u>          </u>
Cal Trans	<u>X</u>	<u>          </u>
U. S. Army Corps of Engineers	<u>X</u>	<u>          </u>
(Other)	<u>See attached.</u>	<u>          </u>

III. EXISTING SETTING:

A. Natural Environment

1. Land (topography, soils, geology)      YES      NO      DON'T KNOW

Does the project site include a unique landform or biological area such as ridges or rock outcrops?      X                                

Will the project involve construction on slopes of twenty percent or greater?                                      X

Is the project to be located in an area of soil instability (liquefaction, subsidence, landslide?)      X                                

Is the site located in a fault management studies zone?      X                                

Do the soils on the site have any severe limitations?                                      X

2. Water/Hydrology

Is the project located with a flood plain?      X                                

Is the project located in an area subject to storm drain overflow?                                      X

Is the project located in the watershed of an area subject to flooding or storm drain overflow?                                      X

Does the project involve a natural drainage channel or creekbed?      X

	YES	NO	DON'T KNOW
<b>3. Biota</b>			
Are there any rare or endangered species of plant life in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the project site adjacent to, or does it include a habitat, food source, water source, nesting place or breeding place for a rare or endangered wildlife species?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there undisturbed and/or unique examples of native plant communities on the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the project located in or near an area with vegetation having a high fire potential?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>B. <u>Pollution (Water, Air, Noise)</u></b>			
Will the project expose people to noise in excess of acceptable levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Do high air pollution levels exist on the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is part of all of the project site a ground water recharge area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C. <u>Infrastructure</u></b>			
<b>1. Circulation</b>			
Are nearby streets or intersections at or near capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Public Utilities</b>			
Are nearby water, sewage, drainage or other facilities at or near capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are these facilities absent in the immediate area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>D. <u>Land Use</u></b>			
Does the project involve lands currently designated as open space or for trails?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the site involve a known historical, architectural, paleontological or archaeological site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. <u>Visual Impact</u>	YES	NO	DON'T KNOW
Is the site adjacent to a designated scenic highway or within a scenic corridor?	<u>X</u>	<u>          </u>	<u>          </u>
Is the site extraordinarily visible from residential areas, public lands or public roads?	<u>X</u>	<u>          </u>	<u>          </u>

#### IV. PROJECT-RELATED IMPACTS

##### A. Natural Environment

###### 1. Water/Hydrology

Will the project generate a significant amount of additional runoff?

                      X

Will the project substantially pollute a ground water source or public water supply?

           X           

Will the project cause substantial siltation?

           X           

###### 2. Biota

Will any mature trees covered under the tree preservation ordinance be removed or transplanted?

                      X

Could the project interfere with the movement of or otherwise significantly affect fish, wildlife, reptiles or other animal life by removing vegetation, creating barriers, etc.?

                      X

###### 3. Grading

Will the project involve extensive grading?

                      X

##### B. Pollution

Will the project create dust, fumes, smoke or odors?

                      X

Will traffic generated by the project significantly increase air pollution?

                      X



	YES	NO	DON'T KNOW
Is the project expected to result in the generation of noise levels in excess of those currently existing in the area?	_____	_____	X
<b>C. <u>Impact on Infrastructure</u></b>			
<b>1. Circulation</b>			
Will the project pose a burden on existing streets?	_____	_____	X
<b>2. Public Utilities</b>			
Will the project require the extension of major public utility lines or other major facilities?	_____	_____	X
<b>D. <u>Land Use</u></b>			
Could the project serve to encourage development of presently undeveloped areas, or increase in development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities, or recreation activities)?	X	_____	_____
Does the project conflict with the general plan, zoning ordinance or other adopted policies?	_____	_____	X
<b>E. <u>Visual Impact</u></b>			
Is the design of the project incompatible with that of surrounding uses?	_____	_____	X
Will the project alter the existing topography or scenic views, such as those of hills, waterways, etc.?	_____	_____	X
Does the project involve the construction of buildings or structures in excess of three stories?	_____	_____	X
<b>F. <u>Social Impact</u></b>			
Will the project require the relocation of significant numbers of people or businesses?	_____	X	_____

YES

NO

DON'T KNOW

G. Energy

Does the design of the project require substantial amounts of energy, or require the development of new energy sources?

\_\_\_\_\_ X \_\_\_\_\_

H. Cultural Resources

1. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?

\_\_\_\_\_ \_\_\_\_\_ X

2. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure or object?

\_\_\_\_\_ X \_\_\_\_\_

3. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?

\_\_\_\_\_ \_\_\_\_\_ X

4. Will the proposal restrict existing religious or sacred uses within the potential impact area?

\_\_\_\_\_ X \_\_\_\_\_

V. SIGNIFICANT IMPACTS/MITIGATION MEASURES (SEE ATTACHED SHEET)A. General Plan/Zoning

Mitigation Measures:

B. Seismic

Mitigation Measures:

C. Noise

Mitigation Measures:

D. Traffic:

Mitigation Measures:

V. SIGNIFICANT IMPACTS/MITIGATION MEASURES

- A. General Plan/Zoning - General Plan categories will be reviewed and consolidated. Land use designations will be determined based on policy considerations provided in the General Plan and existing conditions in the City.

Mitigation Measures: Mitigations proposed in the EIR will be area specific and examined relative to alternative land use designations and policy considerations.

- B. Seismic - The General Plan will designate the special studies (Alquist-Priolo) Seismic zone location in northeast Walnut Creek and incorporate State and City development requirements in this area.

Mitigation Measures: Policies and implementation measures governing development in this area will be included in the safety component of the General Plan. The E.I.R. will evaluate seismic impacts.

- C. Noise - A separate noise element is a required component of the General Plan.

Mitigation Measures: The E.I.R. will address relevant land use concerns based on the analysis of noise impacts created by the General Plan.

- D. Traffic - The Transportation and Circulation Element is a required component of the General Plan which will evaluate existing service levels and projected transportation needs.

Mitigation Measures: The E.I.R. will discuss traffic impacts of the General Plan based on local and regional growth as well as any traffic and transportation improvements proposed. The City's EMME 2 traffic model will be used to assess traffic impacts.

- E. Grading - Policies for hillside areas will be discussed in the General Plan.

Mitigation Measures: Grading impacts are largely localized and are project specific. Policies for hillside development will be included in the General Plan.

- F. Air Pollution - Air Pollution may increase as a result of increased growth and traffic.

Mitigation Measures: The impact of traffic generated by the plan will be analyzed for its effect on air quality.

- G. Vegetation - Preservation of existing natural vegetation and landscaping policies will be discussed in the General Plan.

Mitigation Measures: The E.I.R. will address any encroachment onto scenic Open Space areas as well as assess impacts of urban development on the natural landscape.

- H. Visual Impact - Major visual issues are the I-680 Corridor and preservation of ridgeline views. Also the Core Area development will create visual effect on the built environment.

Mitigation Measures: Various sections of the General Plan will discuss man made and natural visual elements. The E.I.R. will evaluate the effect of development policies on the preservation of existing scenic resources.

- I. Hydrology: Surface, Drainage - The Safety Element of the General Plan will discuss, in qualitative terms, hydrology and drainage considerations including capacity.

Mitigation Measures: Improvements to the existing storm drainage system will be discussed.

- J. Utilities/Water, Sewer, etc. - Service levels will be evaluated as part of the General Plan. Sewer, water and utility districts will be involved in the General Plan analysis.

Mitigation Measures: Service level capacity, growth inducing improvements and alternatives will be assessed in the E.I.R.

- K. Growth Inducement/Cumulative Impact - The General Plan is a development guidance document which will manage growth over the next 15 to 20 years.

Mitigation Measures: The E.I.R. will assess the impacts of growth and its effects as created by the proposed General Plan.





## APPENDIX B:

### A. QUALITY METHODOLOGY AND ASSUMPTIONS



## APPENDIX B: AIR QUALITY METHODOLOGY AND ASSUMPTIONS

### A. CALINE-4 MODELING

The CALINE-4 model is a fourth-generation line source air quality model that is based on the Gaussian diffusion equation and employs a mixing zone concept to characterize pollutant dispersion over the roadway<sup>1</sup>. Given source strength, meteorology, site geometry and site characteristics, the model predicts pollutant concentrations for receptors located within 150 meters of the roadway. The CALINE-4 model allows roadways to be broken into multiple links that can vary in traffic volume, emission rates, height, width, etc. The intersection mode of the model was employed, which distributes emissions along each leg of the intersection for free-flow traffic, idling traffic, idling traffic and accelerating and decelerating traffic. The intersection model extended 500 meters in all directions. Receptors (locations where the model calculates concentrations) were located at distance 10 and 25 meters from the roadway edge for all four corners of the intersection.

Emission factors were derived from the California Air Resources Board EMFAC-7D computer model. Adjustments were made for vehicle mix and hot start/cold start/hot stabilized percentages appropriate to each roadway. Temperature was assumed to be 50 degrees F.

The computation of carbon monoxide levels assumed the following meteorological conditions:

- Windspeed: 1 mps
- Stability: G category
- Mixing Height: 1000 meters
- Surface Roughness: 150 cm
- Standard Deviation of Wind Direction: 20 degrees

The CALINE-4 model calculates the local contribution of nearby roads to the total concentration. The other contribution is the background level attributed to more distant traffic. Background levels were derived from measured levels in 1987 at the Concord monitoring site and future year adjustment factors provided by the Bay Area Air Quality Management District.<sup>2</sup>

### B. URBEMIS-2 MODEL

Estimates of regional emissions generated by project traffic were made using a program called URBEMIS-2.<sup>3</sup> URBEMIS-2 is a program that estimates the emissions that would result from various land use development projects. Land use project can include residential uses such as single-dwelling units, apartments and condominiums, and nonresidential uses such as shopping centers, office buildings, and industrial parks. URBEMIS-2 contains default values for much of the information needed to calculate emissions. However, project-specific, user-supplied information can also be used when it is available.



The following is a description of the parameters that were used in the regional air quality analysis of the proposed project:

- Ambient Temperature: 75 degrees F.
- Trip Lengths: 

Home-Other	5.3 miles
Home-Work	9.6 miles
Home-Shop	3.7 miles
Non-Home Based Work	9.6 miles
Non-Home Based Non-Work	5.6 miles
- Year of Analysis: 2005
- Average Speed: 30 miles per hour for all trip types.

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## BIBLIOGRAPHY

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